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CHILD REARING IN CALIFORNIA, A STUDY OF MOTHERS WITH YOUNG CHILDREN.

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A STUDY CONCERNED WITH THE CHILD REARING PRACTICES OF MOTHERS WITH YOUNG CHILDREN UNDER SIX WAS UNDERTAKEN TO PROVIDE NORMATIVE DATA ON BREAST-FEEDING, BOWEL TRAINING, AND DISCIPLINE AND TO RELATE THE DATA TO FAMILY SOCIOECONOMIC STATUS. FACTORS CONSIDERED WERE OCCUPATION OF THE HEAD OF THE HOUSE, LEVEL OF INCOME, AND EDUCATION OF THE MOTHER. DATA WAS COLLECTED FROM CLUSTER SAMPLES FROM TWO AREAS, THE STATE OF CALIFORNIA AND THE METROPOLITAN COUNTY OF CONTRA COSTA IN CALIFORNIA. EIGHT HUNDRED AND NINE INTERVIEWS WITH MOTHERS IN THE STATE AND 812 IN CONTRA COSTA COUNTY WERE CONDUCTED, USING A QUESTIONNAIRE WITH OPEN-ENDED QUESTIONS ON CHILD REARING PRACTICES. RESULTS OF STATISTICAL ANALYSIS OF THE DATA SHOWED THAT WOMEN WITH SOME COLLEGE EDUCATION HAD A HIGHER RATE OF STARTING TO BREAST-FEED, BEGAN BOWEL TRAINING LATER AND WITH LESS SEVERE METHODS, AND DID NOT USE PHYSICAL PUNISHMENT AS MUCH AS OTHER MOTHERS. THE LEAST EDUCATED GROUP OF MOTHERS (LESS THAN EIGHT YEARS OF SCHOOLING) SHOWED THE SAME CHARACTERISTICS. THE AMOUNT OF EDUCATION OF MOTHERS HAD THE GREATEST INFLUENCE ON CHILD REARING PRACTICES. FAMILY INCOME WAS THE LEAST IMPORTANT SOCIOECONOMIC FACTOR. FOUR APPENDIXES INCLUDE COMPARISONS OF STATEWIDE AND CONTRA COSTA COUNTY SAMPLES, SAMPLING ERRORS, A FACSIMILE OF THE QUESTIONNAIRE, AND A BIBLIOGRAPHY. (MS)

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The author, of course, assumes sole responsibility for the analysis and interpretation of findings in this report.

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CHAPTER I. THE STUDY OF CHILD REARING

Introduction

The conscious search for more effective ways of caring for the young is probably as old as man. Methods of child rearing constitute not only the means of child care, but also afford the parent and society a vehicle for transmitting rules, regulations and values. The child in the process of being cared for learns about himself and his parents. He also begins to sense the intent of the broader culture in which he is developing.

The scientific study of child rearing which received considerable impetus from Freud has been evident only in the last fifty years. Freud suggested that the areas of breast-feeding, toilet training and discipline had far reaching importance for personality development.

Belief that the early experience of the child is important for personality development has proved difficult to demonstrate. The results of research on specific child rearing techniques and their effects on behavior have not been consistent. Despite the absence of clear, positive findings, there has been no lack of pediatric, psychological and psychiatric advice on child rearing. Present emphasis is on breast-feeding, comparatively late and nonpunitive toilet training, and an avoidance of physical or harsh methods of punishment.

A note of caution has recently arisen, however. There is now evidence of shifts in child rearing practives with time,(37,42) possibly in response to changes in professional opinions as to what are the best child rearing procedures. Social class differences reported in earlier studies are no longer observed or are reversed.(5) Not only are changes in methods of rearing children reported, but there is even speculation that the American parent is changing.(24) The confusion for the professional worker and the parent is obvious. Perhaps as a result of the failure to achieve any clarity, the trend in research interest has begun to shift away from specific child rearing practices.

One of the major reasons for a lack of clarity in the results of studies to date appears to be the choice of samples. Perhaps the absence of samples is a more precise statement. Probability samples whose characteristics permit results to be generalized are few. Several samples which constitute the basis for longitudinal studies have been, of necessity, quite small. Only Anderson's detailed study of the preschool child's environment in the 1930s was based on a large and representative sample.(1)

Description of the Study

The present study* was based on two large, probability samples. It was undertaken in order to provide, first, normative data on the child rearing practices of mothers in California and the socioeconomic correlates of these practices; second, to explore the frequency and patterns of behavior problems in preschool children; and, third, to analyze the relationships of child rearing practices to preschool behavior problems. This report covers only the first part of the study.

The data for this investigation are based on two household surveys conducted by the California Department of Public Health in the summer of 1956. One was a Statewide survey with the general purpose of securing information on the health needs of children under six years old. Included were questions on the child rearing practices of the mothers and their perception of the child's behavior. A similar survey was carried out at approximately the same time in Contra Costa County, a metropolitan area with a relatively heterogeneous population. The questions asked were the same in both surveys, except for minor differences not relevant to this study.

The Public Health Department contracted with the U.S. Bureau of the Census to design and select the samples of families to be interviewed and to train and supervise the interviewers. The project staff of the Child Health Research Unit of the Bureau of Maternal and Child Health was responsible for the general design of the study and the construction of the questionnaire.

The Variables

A relatively large number of variables was included in the original study. (See Appendix C for questionnaire used.) The education of the mother, the occupation of the head of the household and the family income were used to define the socioeconomic status of the family in this report. The child rearing practices included were the incidence and duration of breast-feeding, the age at start and completion of bowel training, the method of bowel training, the acts for which the child was typically corrected, the frequency of punishment and the usual method of punishment of the child by the mother and father. The size of the community where the mother lived most of her life was also considered, but only in relation to the incidence and duration of breast-feeding and to the age at start of bowel training.

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*Made possible by a grant of the U.S. Children's Bureau to the California State Department of Public Health in support of the Child Health Research Unit of the Bureau of Maternal and Child Health.

The Samples

Both samples were stratified, cluster samples and represented noninstitutional populations, exclusive of persons residing on military installations. Systematic sampling of clusters was achieved from previously established strata which reflected factors such as income levels, geographic areas, extensive new construction and special types of medical services. In each case selection was performed with known probabilities so that estimates obtained from the data collected could be prepared for the total population with calculable precision.

In both samples when there was more than one child under six in the family, the mother was interviewed primarily with respect to one of them, the study child. An unbiased selection of this study child was achieved by using an assignment table based on random numbers. In processing the data appropriate weights were assigned based on the sampling design. The weights served to insure that both samples replicated the State population. There were 809 interviews secured in the State sample and 812 in the Contra Costa survey. Only one percent of the mothers refused to cooperate. A more detailed explanation of sampling procedures may be obtained from a previous publication.(13)

A check on the adequacy of the Statewide sample was made by comparing some of its general characteristics with those obtained from other sources.(13) Age, sex, racial composition, education, nativity and occupation of head of household showed only negligible differences. A comparison of the two samples used in this study, the Statewide and Contra Costa County samples, on a number of socioeconomic characteristics indicated only small and statistically insignificant differences (Appendix A: Tables A-1 to A-11). While the differences between the two samples were quite small and not statistically significant, there remains the obvious disparity of geography. Contra Costa County is located, in its entirety, closer to metropolitan centers than many areas in the State sample.

Sampling Errors

Both the State and the Contra Costa samples were cluster samples. The use of sampling error formulas based on the assumption of simple random samples was thought to be inappropriate. Kish(16) has pointed out that the usual simple random sampling errors for a cluster sample are likely to be a gross underestimate. Many chance differences are made to appear significant. The division of the State sample into ten sample weeks and the Contra Costa sample into eight sample weeks permitted sampling error estimates which took into account cluster effects. Tables of sampling error were generated for different sized rates and for different sized sample groups (Appendix B: Tables B-1 and B-2). Where sampling errors for chi square were used and were based on the assumption of simple random sampling, a more stringent level of confidence was required for significance ($p = .01$). A p of .05 was used in testing the independence of the samples. Since the size of sampling error was underestimated, a p of .05 represented a more conservative test. The samples were less likely to be independent using a p of .01.

Sample Comparisons

A comparison of the results of the two samples provided a relative measure of the confidence which may be placed in the findings. The interviewers were different in both samples, but they were equally well trained. The questions were the same and the general characteristics of the two samples, as indicated earlier, were highly similar. Only the facts of geography and the concentrated metropolitan status of Contra Costa County compared to the State of California were different. The degree of confidence in the results should be strengthened where the findings for both samples are the same. Differences in the results for the two samples may be inferred to reflect lack of reliability of measurement where cultural or geographical factors do not appear to be reasonably explanatory.

The Interview

The household interviews were conducted by trained personnel. The questionnaire was structured, in the main, but questions were open-ended in the area of child rearing. Independent coding of the questions proved highly reliable with percent agreement above 90.

The interview lasted approximately an hour and a half. An interview of this length with a strange interviewer about events which may be emotionally significant for the mother has obvious limitations. The validity of the mother's statements could not be determined directly. In this study the advantage of the intensive interview repeated over time was given up in order to gain more extensive coverage and sample sufficiency.

An estimate of the adequacy of the interview was available from the interviewer's impression of the cooperation of the mother during the interview. Mother's cooperation was rated as excellent, good, fair or poor. Eighty-five percent of the mothers in the State sample and 93 percent in the Contra Costa sample were judged as excellent or good in their cooperation. Cooperation was positively correlated with socioeconomic status, indicating possibly an interviewer bias for upper-class respondents or better cooperation from those of higher socioeconomic status. However, since the greatest number of respondents came from lower socioeconomic groups, whatever interviewer bias was present, based on socioeconomic status, would not account for the high percent of "excellent" and "good" cooperation reported. It is likely that the cooperation of the respondents was as favorable as reported, at least insofar as overt responses were concerned.

Mother's Recall

Despite the fact that all mothers interviewed were reporting on events which occurred during the preschool period for their preschool children, mothers of older aged preschoolers were responding about breast-feeding and bowel training which had taken place several years earlier. Since the data were analyzed mainly by three age groups - under two years, two to less than four and four to less than six - a comparison of the distributions on these two variables of mothers with older and younger children provided an indirect measure of recall bias. Each of the age groups was representative of that particular age class in the general population. Some of the children were still being breast-fed and some had not started toilet training in the age group under two. Comparisons were limited, therefore, to the two to less than four and the four to less than six-year-old child.

Neither incidence nor duration of breast-feeding showed significant differences when the reporting of mothers with younger children age two to less than four years was compared to that of mothers with older preschool children age four to less than six years (Tables 1 and 2). The results

Table 1

INCIDENCE OF BREAST-FEEDING AS REPORTED RETROSPECTIVELY BY MOTHERS OF YOUNGER AND OLDER STUDY CHILDREN STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

INCIDENCE OF BREAST-FEEDING	STATEWIDE		CONTRA COSTA	
	Age of Child at Time of Interview			
	2 and 3 Years	4 and 5 Years	2 and 3 Years	4 and 5 Years
Percent of All Mothers in Sample	30	33	38	31
Total	100	100	100	100
Breast-fed study child	40	47	34	30
Never breast-fed study child	60	53	66	70
	$x^2 = 2.125$		$x^2 = 0.940$	
	$p > .05$		$p > .05$	

Note: Percents shown in the table were obtained from the weighted samples. For calculating chi square, frequencies from the weighted samples were reduced to bases of 809 for Statewide and 812 for Contra Costa - the actual number of interviews - without distorting the proportional distribution of cases. All subsequent calculations of chi square were based on similarly "reduced" distributions.

Since the employment of the simple random sample error formula for these cluster samples underestimates the size of the sampling error, the use of a p of .05 represents a relatively conservative test of independence. A p of .05 is used in subsequent tests of the independence of samples.

Table 2

DURATION OF BREAST-FEEDING AS REPORTED RETROSPECTIVELY BY MOTHERS OF YOUNGER AND OLDER STUDY CHILDREN STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

DURATION OF BREAST-FEEDING	STATEWIDE		CONTRA COSTA	
	Age of Child at Time of Interview			
	2 and 3 Years	4 and 5 Years	2 and 3 Years	4 and 5 Years
Total Mothers Who Breast-Fed	100	100	100	100
Under one month	32	29	22	20
1-3	37	39	30	44
4-6	14	18	16	13
7 and over	17	14	32	23
	$x^2 = 1.341$		$x^2 = 4.062$	
	$p > .05$		$p > .05$	

for the Contra Costa sample, however, did show some discrepancies for durations of breast-feeding one to three months and for seven months and over. The same comparisons of mothers with younger and older preschool children in regard to reported age of children at start of bowel training also showed no significant difference in either sample (Table 3). Again, some differences were observable in the Contra Costa sample, in this instance in the 6 to 11 month age group.

In general, it would appear that an average lapse of two years did not have a significant effect on mother's recall of breast-feeding or the age of starting bowel training their children.

Table 3

AGE OF CHILD WHEN MOTHER STARTED BOWEL TRAINING AS REPORTED RETROSPECTIVELY BY MOTHERS OF YOUNGER AND OLDER STUDY CHILDREN, STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

AGE AT START OF BOWEL TRAINING	STATEWIDE		CONTRA COSTA	
	Age of Child at Time of Interview			
	2 and 3 Years	4 and 5 Years	2 and 3 Years	4 and 5 Years
Percent of All Mothers in Sample	29	32	37	31
Total Mothers Starting Toilet Training[1]	100	100	100	100
Under 6 months	5	9	4	4
6-11	33	36	32	42
12-17	28	27	35	31
18-23	20	18	16	12
24-29	12	8	10	10
30-35	2	1	2	1
36-47	1	1	a	1
48-59	-	a	-	-
	$x^2 = 4.857$		$x^2 = 6.405$	
	$p > .05$		$p > .05$	

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Results from other studies raise some doubts as to the reliability of mothers' statements concerning their child rearing practices in particular areas. Macfarlane(21) has described a tendency of mothers to make their children appear developmentally advanced. Robbins(27) reported retrospective errors by mothers which were in the direction of making their child rearing practices closer to the contemporary advice of experts. Chess(7) found a similar distortion which seemed to reflect socially acquired ideas of optimal functioning.

Specifically, the reporting on the presence and durtion of breast-feeding appears reliable.(11,22,27) Age at start and completion of toilet training seems most vulnerable to error in retrospective reporting.(22,27) Regression in toilet training and mothers' feelings about toilet training, however, have had fair reliability reported.(39) Indicated reliability coefficients for various aspects of discipline have not been consistent.(11,39) The affective content of the data has also been noted to influence reliability,(39) while the report by the parent of the practice employed has been found to be more reliable than the indication of when the practice was begun or discontinued.(27)

Method of Analysis and Data Presentation

The data on child rearing practices are analyzed by age and sex of the child and the socioeconomic status of the family. Results from both the Statewide and Contra Costa surveys are compared. A cluster analysis of the socioeconomic and child rearing data according to methods developed by Tryon(36) is reported on only briefly. Major findings of other studies are discussed as they relate to the results of the present investigation.

CHAPTER II. BREAST-FEEDING

Breast-feeding is one of the first important decisions that a mother makes in relation to her infant. There has been considerable speculation and research on the incidence, duration and possible influence of breast-feeding on the child. Conjecture about physical benefits for the infant goes back to Hippocrates, if not earlier. It was not until about 1915 that the psychological influence of breast-feeding on child development began to receive relatively systematic consideration.

Freud and psychoanalytic theorists did much to focus attention on the relationship of the nursing experience to personality development. Freud made the concept of orality a central issue in the study of personality. His clinical findings and speculation about oral gratification and deprivation have continued to attract a great deal of attention in the literature on child development.

Decline of Breast-Feeding

Breast-feeding is on the decline, at least in the more industrialized areas of the world. Ryerson(29) in an interesting study of medical books written in English has noted that 24 months was the recommended time of weaning from the breast in the 16th century. By the 19th century, 12 months was the norm with a noticeable drop at about the time of the Industrial Revolution. The average duration reported in various studies at the present time is between two and four months. Time of weaning, in so-called primitive cultures has remained relatively high.(41)

The incidence of breast-feeding in the United States is the lowest of any country reporting rates.(30) Both the incidence and duration of breast-feeding are declining in the United States. Meyer, in his ten year follow-up study of Bain, reported that "the percent of infants in the United States leaving hospital maternity nurseries with breast-feeding decreased from 38 percent in 1946, to 21 percent in 1956."(23) There was less breast-feeding in each category of States and Regions when compared with a decade earlier. Incidence of breast-feeding at a New Haven hospital declined sharply from 82 percent in 1942 to 49 percent in 1946.(14) Bronfenbrenner(5) summarizing results from ten studies, the earliest in 1930 and the latest in 1955, has documented a general decline in incidence and duration.

The decline of breast-feeding has been related to many factors. Obviously important has been the possibility of artificial nursing without physical danger to the infant. Reluctance of the mother to breast-feed has also been related to personality factors, changes in cultural conditions, extend and type of medical care - particularly prenatal care - and the socioeconomic status of the family. Salber,(31) on the basis of an admittedly unrepresentative group of mothers, maintained that the college education of parents and higher social class were the most important factors contributing to a higher percentage of breast-feeding.

The present study provided an opportunity to assess the incidence, duration and some demographic characteristics of breast-feeding in two large, representative samples. The mothers in both household surveys were asked: "Was...breast-fed at any time?" - if yes, "How old was...when he gave up breast-feeding entirely?"

Incidence of Breast-Feeding

Slightly more than 40 percent of mothers in California started their children on breast-feeding (Table 4). In the metropolitan County of Contra Costa, however, only one-third of the children were breast-fed. The greater incidence of breast-feeding in the Statewide sample was significant ($p<.05$). Both males and females in the Statewide sample had significantly higher rates than males and females in the

Table 4

INCIDENCE OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES: PERCENT OF MOTHERS WHO STARTED BREAST-FEEDING BY SEX OF STUDY CHILD

INCIDENCE OF BREAST-FEEDING	STATEWIDE		CONTRA COSTA	
	Male	Female	Male	Female
Percent of All Mothers in Sample	53	47	52	48
Total	100	100	100	100
Breast-fed study child	41	44	35	32
Never breast-fed study child	59	56	65	68

Contra Costa sample. The difference within each sample between the incidence for male and female children was not significant.

Geographic Influence

The differences between samples would appear to reflect in part geographic factors. Contra Costa is, as indicated, a metropolitan County close to and part of an industrialized center, the Bay Area. Geographic differences in the incidence of breast-feeding have been previously reported. Bain(2) found that a smaller percent of breast-feeding occurred at hospitals in or near a metropolitan area. Marked regional variation was noted in the United States. The Northeastern area had the lowest percent of mothers starting to breast-feed. Robertson,(28) while also finding regional variation, found no rural-urban differences. He concluded that a complex of cultural factors accounted for regional differences in rates.

The Meyer study took place at the same time as the Statewide survey being reported here. The study covered mothers giving birth in hospitals with 300 or more annual births. Meyer indicated that 44 percent of mothers in California were breast-feeding at the time of discharge from the hospital. The percent is remarkably close to the results of the Statewide survey. The similarity of the two studies is even more striking when one considers that the Statewide survey was made at a time when the mother had just been discharged from a hospital or as late as six years after discharge, with an average of three years between delivery and the time of the survey.

A breakdown of both "S"* and "CC"* samples by the size of the community where the study mother had lived most of her life provided further evidence of geographic influences associated with the incidence of breast-feeding (Table 5). The larger the size of community in sample S the smaller was the incidence of breast-feeding. The percent starting to breast-feed was 50 for the smallest-sized community (under 2,500) and only 35 for the largest-sized (one million and over).

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*S will be used to refer to the Statewide sample and CC to the Contra Costa sample in some instances.

The general trend in the CC sample was curvilinear* with the highest rates being associated with the smallest- and largest-sized communities. The high rate in the over one million group reflected the relatively greater proportion of mothers with four or more years of college in this size group. The special characteristics of these mothers will be apparent throughout this study.

The influence of where the mother was living at the time of the study** was more important than the community in which she had spent most of her life. The Statewide sample rate for breast-feeding was higher than the metropolitan county rate of Contra Costa for each size of community except the one million and over.

Table 5

INCIDENCE AND DURATION (FOUR MONTHS OR LONGER) OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES: PERCENT BREAST-FEEDING BY SIZE OF COMMUNITY WHERE MOTHER LIVED MOST OF LIFE

SIZE OF COMMUNITY WHERE MOTHER LIVED MOST OF LIFE[1]	PERCENT OF MOTHERS IN EACH COMMUNITY SIZE GROUP WHO BREAST-FED		PERCENT[2] OF BREAST-FEEDING MOTHERS IN EACH COMMUNITY SIZE GROUP WHO BREAST-FED FOUR MONTHS OR LONGER	
	State-wide	Contra Costa	State-wide	Contra Costa
Farms and Under 2,500	50	37	34	46
2,500-25,000	42	33	20	28
25,001-100,000	43	27	24	36
100,001-1,000,000	36	31	25	23
Over 1,000,000	35	40	14	16

[1] Table omits foreign-born mothers and mothers for whom size of community is not ascertainable. These categories are 8 percent of the Statewide sample and 7 percent of the Contra Costa sample.

[2] Bases for computing percents do not include a few mothers who were still breast-feeding.

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*No formal mathematical statement is intended in the use of the word curvilinear.

**Reflected by whether the mother was in the Statewide or Contra Costa samples. The two samples did not include any duplication of subjects.

In general, the results of this study and previous research, point to a lower incidence of breast-feeding in metropolitan communities. Lower rates were also evident in this study for mothers who had spent most of their lifetime in larger-sized communities, except for the largest-sized communities in a metropolitan county where there was a noticeable concentration of highly educated mothers.

Socioeconomic Factors and Breast-Feeding

The presence of geographical differences and the decline of breast-feeding would appear to be complicated by socioeconomic factors. Until about the middle of the 1940s most studies showed more mothers from lower socioeconomic groups breast-feeding and for longer periods.(5) There is some evidence now that the trend may be reversed, although several investigators have reported no significant differences between middle- and lower-class mothers.(19,20)

One California study (40) of a group of 74 mothers in the South San Francisco Peninsula area in 1953 showed 69 percent of the middle-class mothers breast-feeding and 63 percent of working-class mothers.

Education of Mother

Both samples showed a curvilinear relation between the incidence of breast-feeding and the education of the mother (Table 6). The least and most educated mothers undertook breast-feeding more frequently. Noticeably high rates were evident for the least educated group, less than eight years of schooling, in the Statewide sample and the most educated group, four or more years of college, in the Contra Costa sample.

Fifty-one percent of the mothers with four or more years of college undertook breast-feeding compared to only about one-third of the mothers with less education in the CC sample. Fifty-three percent of the mothers with less than eight years of schooling breast-fed in sample S compared to slightly more than 40 percent in the total sample. The differences between mothers with no college and some college were not significant in sample S. The high rate of the four year college group in the CC sample made for a significant difference between no college and some college in that sample ($p<.05$).

Again the incidence of breast-feeding in sample S was greater than in the CC sample for each educational group, except for mothers with four or more years of college. Living in or near a metropolitan area continued to depress the rate of breast-feeding, even as it did when size of community where the mother spent most of her life was considered. Only the highly educated mother living in a metropolitan area reversed the pattern, evidencing a high rate of breast-feeding.

Table 6

INCIDENCE AND DURATION (FOUR MONTHS OR LONGER) OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES: PERCENT-BREAST FEEDING BY EDUCATION OF MOTHER

EDUCATION OF MOTHER	PERCENT OF MOTHERS IN EACH EDUCATION GROUP WHO BREAST-FED		PERCENT[1] OF BREAST-FEEDING MOTHERS IN EACH EDUCATION GROUP WHO BREAST-FED FOUR MONTHS OR LONGER	
	State-wide	Contra Costa	State-wide	Contra Costa
8 Years or Less	53	35	29	56
9-11 Years	37	29	28	35
12 Years	43	31	26	32
1-3 Years of College	43	36	18	40
4 or More Years of College	46	51	18	25
No College	42	31	27	36
College	44	43	18	31

[1] Bases for computing percents do not include a few mothers who were still breast-feeding.

Occupation of Head of Household

The occupational status of the head of the household and the incidence of breast-feeding showed a less definite curvilinear association (Table 7). Again, as with education of the mother, the greatest incidence of breast-feeding in the Statewide sample was for the lowest occupational group. Forty-eight percent undertook breast-feeding in families where the head of the household was classified as a laborer. In the Contra Costa sample the highest rate was in the professional-managerial group. Differences between mothers in "white" and "blue collar" households, however, were not significant in either sample.

The differences between the two samples, noted previously as showing higher rates for sample S, were again

Table 7

INCIDENCE AND DURATION (FOUR MONTHS OR LONGER) OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES: PERCENT BREAST-FEEDING BY OCCUPATION OF HEAD OF HOUSEHOLD

OCCUPATION OF HEAD	PERCENT OF MOTHERS IN EACH OCCUPATION GROUP WHO BREAST-FED		PERCENT[1] OF BREAST-FEEDING MOTHERS IN EACH OCCUPATION GROUP WHO BREAST-FED FOUR MONTHS OR LONGER	
	State-wide	Contra Costa	State-wide	Contra Costa
Farm Laborers; Laborers	48	35	36	57
Operatives and Service Workers	37	31	12	48
Craftsmen and Foremen	42	32	28	30
Clerical, Sales	42	21	24	28
Professional, Managerial	42	43	29	25
Blue Collar	41	32	24	42
White Collar	42	37	28	26

[1] Bases for computing percents do not include a few mothers who are still breast-feeding.

Table 8

INCIDENCE AND DURATION (FOUR MONTHS OR LONGER) OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES: PERCENT BREAST-FEEDING BY ANNUAL FAMILY INCOME

ANNUAL FAMILY INCOME	PERCENT OF MOTHERS IN EACH INCOME GROUP WHO BREAST-FED		PERCENT[1] OF BREAST-FEEDING MOTHERS IN EACH INCOME GROUP WHO BREAST-FED FOR FOUR MONTHS OR LONGER	
	State-wide	Contra Costa	State-wide	Contra Costa
Under $3,000	45	35	27	41
3,000-3,999	50	34	24	54
4,000-4,999	46	35	26	28
5,000-5,999	42	32	34	22
6,000-7,999	33	34	22	46
8,000 and Over	39	35	16	28
Under 5,000	47	35	26	37
5,000 and Over	38	33	25	33

[1] Bases for computing percents do not include a few mothers who were still breast-feeding.

present, except for the higher rate of the professional-managerial group in the CC sample. This classification was quite similar to the group of mothers with four or more years of college in the CC sample who also had a comparatively high rate of breast-feeding.

Family Income

Breast-feeding by mothers in families with varying levels of income was remarkably uniform in the CC sample. In sample S, however, rates were significantly higher ($p < .05$) for low income groups (less than $5,000) when compared with high income families ($5,000 and over). Specific rates for the various income groups were irregular, however (Table 8).

Incidence of Breast-Feeding, Education of Mother and Size of Community

The influence of size of community where the mother spent most of her life was explored along with the education of the mother in an attempt to clarify further the relationship of the mother's education to breast-feeding. Size of community was limited to less than 100,000 population and 100,000 or over because of the reduction in the frequency of the various cells resulting from cross-classification.

The general curvilinear relationship between incidence of breast-feeding and the education of the mother was maintained in the smaller- and larger-sized communities and in both samples (Table 9). The noticeable exception was the low rate of the least educated mothers in the CC sample who had spent most of their lives in communities over 100,000. This rate, however, was based on an n of less than 30. The high rate of breast-feeding for the mothers with less than eight years of education in the Statewide sample was still evident as was the high rate for mothers with four or more years of education in the Contra Costa sample. However, mothers from larger-sized communities with the most education showed the sharpest departure from the rates of other mothers in both samples.

The mother most likely to breast-feed was the one who had four or more years of college, had spent most of her life in a larger-sized community and was living in or near a metropolitan area at the time of the survey. About equally inclined to breast-feeding was the mother with very little education who had spent most of her life in a small-sized community. These two groups of women emphasize the essential curvilinear relationship of breast-feeding to the socioeconomic status and the residential history of mothers.

Table 9

INCIDENCE OF BREAST-FEEDING IN STATEWIDE AND CONTRA COSTA SAMPLES PERCENT BREAST-FEEDING BY EDUCATION OF MOTHER AND SIZE OF COMMUNITY IN WHICH MOTHER LIVED MOST OF HER LIFE[1]

EDUCATION OF MOTHER	PERCENT[2] OF BREAST-FEEDING MOTHERS IN EACH EDUCATION GROUP			
	From Communities Under 100,000		From Communities Over 100,000	
	State-wide	Contra Costa	State-wide	Contra Costa
8 Years or Less	52	39	(47)	(23)
9-11 Years	39	27	28	31
12 Years	46	32	36	25
1-3 Years of College	48	38	35	20
4 or More Years of College	(45)	49	(49)	54
No College	45	31	34	27
College	47	42	39	41

[1] Table omits foreign-born mothers and mothers for whom size of community is not ascertainable.

[2] Percents in parentheses are based on education groups with fewer than 30 mothers.

Note: Bases for computing percents do not include a few mothers who were still breast-feeding.

Duration of Breast-Feeding

The duration of breast-feeding was minimal for most children in this study. Almost three-quarters of all preschool children who were breast-fed had been weaned by the end of three months. Females in the Contra Costa sample were nursed significantly longer than any of the other three sample groups, that is, males and females in the Statewide sample and males in the CC sample ($p < .05$). Only 58 percent of the females in the CC sample had been weaned by the end of three months in contrast to approximately 70 percent of all other children (Table 10).

Table 10

DURATION OF BREAST-FEEDING BY SEX OF STUDY CHILD STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution of Mothers

DURATION OF BREAST-FEEDING	STATEWIDE		CONTRA COSTA	
	Male	Female	Male	Female
Percent of All Mothers in Sample	41	44	35	32
Total Mothers Who Breast-Fed[1]	100	100	100	100
Under 1 month	33	30	30	21
1-3	40	42	39	37
4-6	14	13	13	13
7 and over	10	11	17	26
Still breast-feeding	3	4	1	2

[1] Percents are computed independently and may not add to 100.

Four studies(4,17,19,20) in the United States for the period 1946 to 1955 reported a median duration in months ranging from 1.2 to 3.6. Duration of breast-feeding in Great Britain in 1946 was 4.2 months. The median duration of breast-feeding for boys in California was 2.7 months and for girls 2.4. In the metropolitan County of Contra Costa, duration was 2.5 for boys and 3.3 for girls.

Geographic Influence and Duration

Duration of breast-feeding in general decreased with an increase in the size of the community where the mother lived most of her life. There was a decline from 34 percent breast-fed four months or longer by mothers who had spent most of their lives in the smallest-sized community to 14 percent in the largest-sized community for the Statewide sample. The decline for the same groups in the CC sample was from 46 to 16 percent (Table 5).

Duration and Socioeconomic Status

While the mother with at least four years of college in Contra Costa initiated breast-feeding more frequently than other mothers, she showed the least inclination to continue breast-feeding. Only 25 percent of these mothers maintained breast-feeding beyond three months as compared to 56 percent of mothers with less than eight years of education (Table 6). The Statewide sample revealed the same tendency of less duration for more educated mothers. In other words, mothers with very little education when they started to breast-feed did so with some conviction which persisted. The mother with very good education responded to the ideal presented to her by natural feeding, but was unable or unwilling to sustain the effort as long as the less educated mother.

Duration of breast-feeding was longer for less skilled occupations in the CC sample, but was irregular in sample S (Table 7). The low rate for duration of four months or longer for the highest income group in both samples was consistent with the results for education and occupation. (Table 8).

Summary and Discussion of Breast-Feeding

The psychological and physical benefits of breast-feeding continue to be emphasized by many authorities concerned with child care. It was Freud who focused attention on the psychological importance of nursing. Despite considerable speculation and research, there is still little evidence that breast-feeding is of itself psychologically beneficial for the child's development. A recent study(12) points up the importance of the mother's feelings in the nursing situation. The mother's feelings as well as the methods of nursing need to be evaluated before statements about the affect on the child's behavior may be made.

While the judgement of the psychological value of breast-feeding remains factually suspended, there are accumulating data on its decline and the geographic as well as socioeconomic variation of its rate. The decline of breast-feeding appears to be proceeding directly with the civilization of women except for a recent uplift by the most educated mother. United States, the most industrialized country, has the lowest reported rate of breast-feeding. Studies have revealed some evidence that mothers in or near metropolitan areas undertake breast-feeding less frequently. New England has all but abandoned natural nursing. Only 16 percent of mothers in New England undertook any breast-feeding of their infants in 1956.(28)

California has had a relatively high rate of breast-feeding. The results of this study indicated that slightly more than 40 percent of mothers in 1956 started breast-feeding. There was a small but not significant difference between boys and girls. The incidence for California, however, was significantly higher than for Contra Costa, a metropolitan County in California and close to the Bay Area, an industrial center. The lower incidence of breast-feeding in this metropolitan County was consistent with the results of other studies. Further evidence came from the generally higher rate of mothers who had spent more of their lives in smaller- rather than larger-sized communities. The place where the mother was currently living, however, was more strongly associated with incidence of breast-feeding than was the community in which she had spent most of her life.

Mothers from lower-class families were more likely to breast-feed in the past. Recent studies have shown middle-class mothers with a higher incidence of breast-feeding than lower-class mothers or no differences. The results in California with two large representative samples were curvilinear. Higher rates of breast-feeding were associated with the very least and most educated mothers. The results based on analyses of the occupation of the head of the household were similar, but less definite. Income showed no distinct pattern.

Mothers with the least education, less than eight years of schooling in the Statewide sample, and mothers with the most schooling, four or more years of college in the metropolitan County sample of Contra Costa, were the most likely to start breast-feeding. Size of community where the mother lived most of her life was not only less influential than her current abode, but also did not change the basic pattern of the relation of education to breast-feeding. Where the mother lived at the time of the study remained important. When education of the mother was controlled, in each instance, except for the mother with four or more years of college, the breast-feeding rates for mothers from the metropolitan County sample were lower than the rates for mothers from the Statewide sample.

It would appear that the more industrialized or urbanized the culture of the mother, the less likely she is to breast-feed. Mothers with college education, and more particularly the highly educated mother with four or more years of college, reversed this trend. More than half of these mothers with four or more years of college started breast-feeding compared to less than one-third of other less educated mothers living in the same area.

While the highly educated mother has brought some reversal in the decrease in the incidence of breast-feeding, she was less inclined to continue breast-feeding once started. Fewer mothers with four or more years of college continued to nurse beyond three months compared with less educated mothers or those with lower socioeconomic status. Although the highly educated mother in this study appeared to be reversing the general trend making for less breast-feeding, the actual duration of breast-feeding for her was relatively short.

The presence in this study and others of geographic and socioeconomic differences in the incidence and duration of breast-feeding emphasize not only the complex nature of the cultural factors associated with the decision and undertaking of breast-feeding, but also raise grave suspicions about any categorical statements of the relationship of breast-feeding to the mother's personality or her love of the child. Geography and socioeconomic status have not as yet been found to correlate highly with a mother's love. Certainly whatever the findings on the relations of breast-feeding to personality variables, geographic and socioeconomic variables will need to be considered.

CHAPTER III. BOWEL TRAINING

Bowel training is a developmental task which each child encounters in most societies and must complete in a relatively short period of time. There is extensive literature on the subject of toilet training as with other areas of child rearing. Here, again, there is more speculation than evidence. It is only recently that some systematic research has been undertaken. There has been less formalized study of toilet training than of nursing.

Two broad points of view may be distinguished in regard to the theoretical importance of toilet training for the growth and development of the child. Freud, as was observed with nursing, did much to focus attention on the psychological implications of this period of the child's life. He regarded the so-called anal phase as an integral part of the psychosexual history of the child. Libido was thought to be shifted to the anal zone during this second phase whereas it will be recalled that the mouth was emphasized as the primary erogenous zone in the previous period. Characterological differences were said to result from the child's toilet training experience.(10)

Another point of view regards toilet training as an important developmental experience, but not as a necessary source of libidinal gratification. Parental values or attitudes are communicated to the child who is learning what the world around him is like, particularly as a result of his interpersonal transactions with his mother.

There is some agreement on advice to mothers, despite a continuing theoretical conflict on how best to conceptualize the general experience of toilet training and the extent to which it is important for the child's subsequent development. In general it is recommended that mothers wait until the child has achieved postural control and is able to understand as well as communicate about bowel training. The best time to start is usually mentioned as sometime in the second year with the specific timing depending on the degree of maturity of the child. Current recommendations are in obvious contrast with expert advice in the past. In the 19th century it was generally felt that the younger the age at start, the better.(35) As late as 1929 medical advice regarded the third or fourth month as the test time to initiate bowel training.

Age at start is only one aspect of the training process. There is also a prevailing opinion that severe methods of toilet training may have unfortunate behavioral consequences for the child. What are the best methods of training the child successfully with the least amount of disturbance for the family? For method as well as age of start, there is little representative information on the practices of parents or the impact of these experiences on the behavior of the child. There is also a need to understand what other factors in the family environment affect or are related to decisions about methods and age at start. Some relevant research has been undertaken in these areas and will be referred to as the results of this study are presented.

Age at Start of Bowel Training

Previous studies point to the United States as having a comparatively early starting time for bowel training.* Many families would appear to start training at an earlier time than is generally recommended in current pediatric practice. Whiting and Child(41) found that the median estimate for beginning serious toilet training was age two in so-called primitive societies. They felt that American middle-class families started training at an extremely early age. Typically they were reported as beginning when the child was a little over six months. Only the primitive society of Tanala was said to start earlier.

The judgment of Whiting and Child that mothers in the United States started training so early was based on the results of the Davis and Havighurst study.(9) The data from this study were secured from a limited group of subjects in a narrow geographic area in 1943. Actually the median age of starting bowel training was reported as 7.5 months for middle-class mothers and 9.1 for lower-class mothers.

Subsequent investigations have revealed somewhat later starting times. Miller and Swanson(24) found that 58 percent of families in a representative cross-section of Detroit area homes in 1953 who had started bowel training began when the child was between six and nine months old. The Sears study(33) carried out in New England in 1951-1952 revealed that close to half of the mothers started by nine

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*Sears(33) maintains that many other cultures start training earlier and use more severe punishment for deviations.

Table 11

PERCENT DISTRIBUTION OF MOTHERS BY AGE OF CHILD WHEN BOWEL TRAINING WAS STARTED, SEPARATELY BY SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

AGE OF CHILD AT START OF BOWEL TRAINING	STATEWIDE			CONTRA COSTA		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Percent of All Mothers in Sample[1]	79	41	38	80	44	36
	Percent Distribution					
Total Mothers Starting Bowel Training[2]	100	100	100	100	100	100
Under 6 months	7	7	6	5	4	6
6-11	36	31	41	38	37	38
12-17	30	29	31	35	30	40
18-23	17	19	16	13	16	10
24-29	8	10	6	8	11	5
30-35	1	2	-	1	1	1
36-47	1	2	-	a	1	-
48-59	a	-	a	-	-	-
Median Age at Start	14	14	13	13	14	13
	Cumulative Percent					
Under 6 months	7	7	6	5	4	6
6-11	43	38	47	43	41	44
12-17	73	67	78	78	71	84
18-23	90	86	94	91	87	94
24-29	98	96	99	99	98	99
30-35	99	98	99	99	99	100
36-47	99	100	100	100	100	
48-59	100					

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

[2] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

months. A Eugene, Oregon sample(19) in the early '50s indicated that the median age of starting time according to the mother was between ten and eleven months.

California, in general, came closer to norms advocated in recent pediatric practice. Only 43 percent of the children in both samples were started before 12 months of age. Close to one-fourth of the Statewide and Contra Costa samples were begun at 18 months or later (Table 11). The mean age at start was 14 months for boys and 13 months for girls.

Girls in both samples of the present study were started significantly earlier than boys ($p<.01$, sample S; $p<.001$, sample CC). Not only were girls started earlier, but as will be observed later, they also completed bowel training earlier.

There is evidence that girls mature physically at a more rapid rate than boys in the preschool years. The start and completion of training at an earlier age for girls may result from advantages in their general level of maturation including the extent of myelination, a necessary factor in the achievement of bowel control.

Age at Completion and Duration of Bowel Training

Only a little more than half of the children in California achieved bowel control by two years of age (Table 12). The Chicago, Boston and Eugene studies, on the other hand, reported a median completion age of around 17 months. The median age for the Statewide sample was 22 months and for Contra Costa 21 months (Table 13).

Girls in both samples completed earlier than boys ($p<.01$). Mean age in months for boys in both samples was 23 months, whereas for girls in sample S it was 20 months and 19 in the CC sample.

It has been suggested that too early starting time not only leads to emotional disturbance for the child, but is more likely to require longer periods for the establishment of control. Sears(33) has shown that the average time for completion was related to when the mother started bowel training. Children started before five months of age took 9.6 months to complete, whereas those children beginning after 20 months required only 4.7 months.

Table 12

PERCENT DISTRIBUTION OF MOTHERS BY AGE OF CHILD WHEN BOWEL TRAINING WAS COMPLETED, SEPARATELY BY SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

AGE OF CHILD AT COMPLETION OF BOWEL TRAINING	STATEWIDE			CONTRA COSTA		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Percent of All Mothers in Sample[1]	64	34	30	68	35	33
	Percent Distribution					
Total Mothers Completing Bowel Training[2]	100	100	100	100	100	100
Under 6 months	a	-	1	a	a	-
6-11	9	7	11	6	4	7
12-17	21	18	25	28	21	36
18-23	27	23	31	27	23	30
24-29	29	34	23	26	30	22
30-35	9	11	6	9	15	3
36-47	5	6	3	4	7	2
48-59	a	a	a	a	a	-
60-71	a	-	a	-	-	-
	Cumulative Percent					
Under 6 months	a	-	1	a	a	-
6-11	9	7	12	6	4	7
12-17	30	25	37	34	25	43
18-23	57	48	68	61	48	73
24-29	86	82	91	87	78	95
30-35	95	93	97	96	93	98
36-47	99	99	99	99	99	100
48-59	99	100	99	100	100	
60-71	100		100			

[1] Bases for computing percents exclude mothers who had not completed bowel training at time of interview.

[2] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Table 13

MEAN AGE OF CHILD IN MONTHS AT COMPLETION OF BOWEL TRAINING BY AGE AT START OF TRAINING AND SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

AGE OF CHILD AT START OF BOWEL TRAINING	STATEWIDE			CONTRA COSTA		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Percent of Sample[1]	64	34	30	66	34	32
	Mean Age in Months at Completion					
All Preschool Children	22	23	20	21	23	19
Under 6 months	15	16	13	13	14	13
6-11	17	19	16	18	20	16
12-17	23	24	22	21	22	20
18-23	26	26	26	27	28	25
24-29	32	32	31	32	32	31
30-35	(36)	(36)	a	(39)	(42)	(38)
36-47	(42)	(42)	a	(42)	(42)	a
48-59	(66)	a	(66)	a	a	a

[1] Table includes only those children who have both started and completed bowel training.

[a] No instances.

Note: Means in parentheses are based on 5 cases or fewer.

Both the California and Contra Costa data confirm the findings of Sears. Males and females in both samples evidenced a gradually decreasing amount of time necessary to bowel train with increasingly later-age starts. The time required was eight to eleven months for those children started before six months of age. Only six months or less was needed to train children who began between 24 and 30 months (Table 14).

Table 14

MEAN DURATION OF BOWEL TRAINING IN MONTHS BY AGE OF CHILD AT START OF TRAINING, STATEWIDE AND CONTRA COSTA SAMPLES

AGE OF CHILD AT START OF BOWEL TRAINING	MEAN DURATION OF BOWEL TRAINING IN MONTHS					
	Statewide			Contra Costa		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 6 Months	10	11	9	9	10	8
6-11	9	10	8	9	11	7
12-17	9	10	8	8	9	7
18-23	8	8	8	8	9	6
24-29	5	6	4	5	5	4

Note: Mean duration is less reliable for children starting bowel training at 18 months or later (the last two lines in the table) because age at start and completion were scaled in relatively broad intervals above 24 months.

The decline in time required was gradual with increasing age of start. If duration is the sole criterion, it would appear that there is no critically advantageous age of start except, perhaps, for the latest shown starting time of 24-29 months which was the least reliable of the groups. The same gradual decline may be noted in the Sears data.

Girls in California took less time than boys to gain control when age of start was held constant (Table 14). The findings point to time advantages in all areas for girls. They start younger, complete younger, with age adjusted for the later starting time of boys, and require less time to achieve control when starting at the same age as boys.

Socioeconomic Status and Age at Start of Bowel Training

Previous studies on the relation of the starting age of toilet training to the socioeconomic status of the family show the same general trend as incidence and duration of breast-feeding. Bronfenbrenner(5) in his review noted two investigations in the early 1940s which showed middle-class families starting toilet training earlier than lower-class families. Later investigators reported no differences on middle-class mothers starting later.

The Chicago study by Davis and Havighurst had middle-class mothers in the early 1940s beginning earlier than lower-class mothers. The Sears study in 1951-1952 and the Eugene results for 1955-1956 showed no differences.

Education

Detailed rates for California and Contra Costa County by the three socioeconomic measures used and for those mothers starting training before the child was one year old revealed that the education of the mother showed the only significant relationship to early starting time. Mothers with college education started training later (Table 15). While the difference in sample S between college and noncollege mothers was not significant, there was a sharp drop in the percent of mothers with four or more years of college beginning training before the child was one year. For the CC sample, the difference between college and noncollege mothers was significant with 45 percent of the latter starting training before one year. Only 32 percent of the college mothers undertook training before the child was one year old ($p<.05$).

Table 15

PERCENT OF MOTHERS WHO STARTED BOWEL TRAINING CHILD AT LESS THAN ONE YEAR OF AGE BY EDUCATION OF MOTHER, STATEWIDE AND CONTRA COSTA SAMPLES

EDUCATION OF MOTHER	PERCENT[1] OF MOTHERS IN EACH EDUCATION GROUP WHO STARTED BOWEL TRAINING AT LESS THAN ONE YEAR	
	Statewide	Contra Costa
8 Years or Less	46	45
9-11 Years	41	41
12 Years	42	47
1-3 Years of College	42	32
4 or More Years of College	33	32
No College	43	45
College	40	32

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

Income and Occupation

High family income mothers ($5,000 and over) did not start training significantly earlier than low income mothers (less than $5,000), using again the criterion of percent starting before the child was one year (Table 16). However, the less than $3,000 and the $8,000 and over groups had noticeable lower rates in the CC sample.

Occupation also appeared to bear no significant relation to starting training before one year (Table 17). A comparison of "blue" and "white collar" workers showed no significant difference. The percent was noticeably low for laborers in sample S but high for this same group in the CC sample.

The apparent later starting time of college educated mothers, and particularly mothers with four or more years of college education, was consistent with the higher incidence of breast-feeding among these mothers. The results agreed with recent studies reflecting more liberal child rearing practices among middle-class families. The influence of the mother's education on incidence of breast-feeding and age at start of toilet training were more evident than the impact of other socioeconomic variables in this study.

Table 16

PERCENT OF MOTHERS WHO STARTED BOWEL TRAINING CHILD AT LESS THAN ONE YEAR OF AGE BY ANNUAL FAMILY INCOME STATEWIDE AND CONTRA COSTA SAMPLES

ANNUAL FAMILY INCOME	PERCENT[1] OF MOTHERS IN EACH INCOME GROUP WHO STARTED BOWEL TRAINING AT LESS THAN ONE YEAR	
	Statewide	Contra Costa
Under $3,000	44	32
3,000-3,999	43	46
4,000-4,999	41	48
5,000-5,999	40	42
6,000-7,999	40	45
8,000 and Over	42	29
Under $5,000	43	44
5,000 and Over	41	41

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

Table 17

PERCENT OF MOTHERS WHO STARTED BOWEL TRAINING CHILD AT LESS THAN ONE YEAR OF AGE BY OCCUPATION OF HEAD OF HOUSEHOLD STATEWIDE AND CONTRA COSTA SAMPLES

OCCUPATION OF HEAD	PERCENT[1] OF MOTHERS IN EACH OCCUPATION GROUP WHO STARTED BOWEL TRAINING AT LESS THAN ONE YEAR	
	Statewide	Contra Costa
Farm Laborers, Laborers	31	52
Operatives and Service Workers	46	39
Craftsmen and Foremen	42	45
Clerical, Sales	45	38
Professional, Managerial	40	39
Blue Collar	42	43
White Collar	42	39

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

Methods of Bowel Training

Methods used by mothers in toilet training are obviously an important part of the child's experience in gaining bowel control. It is generally accepted, although the evidence is far from definitive, that severe or punitive methods of training may have at least immediately disruptive effects on the child. Psychoanalytic theory has pointed to the potentially harmful influence on later personality development. Despite many strong statements in the literature about methods of training, there is little information about what mothers actually do, not to mention evidence on the effects of various procedures.

Methods used by mothers in this study when the child resisted bowel training were coded in great detail. For purposes of the present analysis only three broad categories were used to summarize the data: (1) punitive or forcing methods, (2) persuade, let-it-go or constructive methods, and (3) no special method because the child cooperated.

Table 18

PERCENT DISTRIBUTION OF MOTHERS BY METHOD OF BOWEL TRAINING USED WHEN CHILD RESISTED TRAINING, SEPARATELY BY SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

METHOD OF BOWEL TRAINING	STATEWIDE			CONTRA COSTA		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Percent of All Mothers in Sample[1]	78	41	37	78	42	36
Total	100	100	100	100	100	100
Punitive force	19	22	17	20	22	17
Persuade, "let it go," constructive	62	61	63	64	65	64
Child cooperates	19	17	20	16	13	19

[1] Table excludes mothers who had not initiated bowel training at time of interview and mothers for whom method was not ascertainable.

The results for both samples were quite similar. One-fifth of the mothers reported using punitive-forcing methods. A somewhat greater percent of mothers used punitive-forcing methods with boys (Table 18).

In the Sears(33) study about a fifth of the mothers used definite punishments or emphatic, repeated scoldings. The Eugene(19) investigation revealed that close to 22 percent spanked, whipped, slapped, or scolded as remedial practices for soiling. The Davis and Havighurst(9) data from Chicago showed that 40 percent of lower-class mothers employed these same procedures, while only 13 percent of middle-class mothers were coercive or punitive in their remedial practices for soiling. The percent for the entire sample appears to be approximately 27.

California results were close enough to the Boston and Eugene reports, so that we may assume that about one-fifth of the mothers in a general population use or admit using punitive-forcing methods of toilet training.

Socioeconomic Status and Methods of Toilet Training

Methods of toilet training by mothers in this study were clearly related to the family's socioeconomic status. Less severe methods were used by mothers with higher socioeconomic status. The college educated mother was significantly less punitive in training her child (Table 19). In both samples there is a gradual decrease in the employment of punitive-forcing methods as the education of the mother increased with a sharp decrease for mothers with four or

Table 19

PERCENT OF MOTHERS WHO USED PUNITIVE-FORCING METHODS
OF BOWEL TRAINING BY EDUCATION OF MOTHER
STATEWIDE AND CONTRA COSTA SAMPLES

EDUCATION OF MOTHER	PERCENT[1] OF MOTHERS IN EACH EDUCATION GROUP WHO USED PUNITIVE-FORCING METHODS	
	Statewide	Contra Costa
8 Years or Less	31	26
9-11 Years	33	32
12 Years	18	21
1-3 Years of College	15	23
4 or More Years of College	5	7
No College	24	26
College	12	15

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

more years of college. Only five to seven percent of these mothers used harsh methods as compared to from 15 to 33 percent of mothers with less education. The differences in both samples between college and noncollege mothers were significant ($p < .05$). The lowest educational group, mothers with less than eight years of schooling, had a slightly lower rate than the next educational group, 9 to 11 years in both samples.

"White collar" families were also less punitive than "blue collar" families ($p < .05$) and higher income families were milder than lower income families, although the differences for the income comparisons were not significant. There was a noticeable decrease in the use of punitive methods for the highest income group in both samples (Tables 20 and 21).

Table 20

PERCENT OF MOTHERS WHO USED PUNITIVE-FORCING METHODS OF BOWEL TRAINING BY OCCUPATION OF HEAD OF HOUSEHOLD STATEWIDE AND CONTRA COSTA SAMPLES

OCCUPATION OF HEAD	PERCENT[1] OF MOTHERS IN EACH OCCUPATION GROUP WHO USED PUNITIVE-FORCING METHODS	
	Statewide	Contra Costa
Farm Laborers, Laborers	20	37
Operatives and Service Workers	27	31
Craftsmen and Foremen	32	24
Clerical, Sales	7	19
Professional, Managerial	17	14
Blue Collar	28	29
White Collar	14	15

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

Table 21

PERCENT OF MOTHERS WHO USED PUNITIVE-FORCING METHODS OF BOWEL TRAINING BY ANNUAL FAMILY INCOME STATEWIDE AND CONTRA COSTA SAMPLES

ANNUAL FAMILY INCOME	PERCENT[1] OF MOTHERS IN EACH INCOME GROUP WHO USED PUNITIVE-FORCING METHODS	
	Statewide	Contra Costa
Under $3,000	24	41
3,000-3,999	21	31
4,000-4,999	31	16
5,000-5,999	18	32
6,000-7,999	26	21
8,000 and Over	11	9
Under $5,000	25	25
5,000 and Over	19	23

[1] Bases for computing percents exclude mothers who had not initiated bowel training at time of interview.

Summary and Discussion of Bowel Training

Professional concern with the relation of toilet training to child development does not have as long a history as breast-feeding. As with breast-feeding, however, it was Freud who directed attention to toilet training experiences as having characterological implications. He suggested that the severity of cleanliness training techniques could be assessed by a consideration of the age at which toilet training was started and whether or not punishment was employed.(10) Until recently, societal needs for cleanliness and regularity of biological functioning were, perhaps, expressed in the professional advice for very early training. The Freudian influence and a growing realization of individual needs and differences would appear to have resulted in a tempering of the pressure for early training.

Previous studies even into the middle 1950s have indicated, however, a continuation by mothers of starting their training of children at ages earlier than what is now deemed optimal by pediatricians and experts in child care.

The results of the California studies being reported here showed a later starting time than was revealed by other studies. California mothers were closer to pediatric norms being advocated. More than half of the children were started after one year of age and close to one-quarter of the mothers had not initiated training until the child was 18 months or older.

California children completed bowel training at a relatively older age than children reported in other studies. The mean age of completion was 22 months for California. The later age of achieving bowel control was related to the later age of starting to train. The relation was independent of the relatively shorter time required with later age starts.

The length of time it took to complete toilet training was related to the age at which the child was started. It makes some sense that the older child having gained, so to speak, more of the equipment necessary to do the job, should manage to learn control more quickly. In general, the later the starting age the less time necessary to train. The progressive decrease in time necessary with increasing age was gradual, indicating no critically advantageous age to start, if time saved is the criterion.

Sex differences in the child's toilet training experience have not been generally reported in the literature. There is, however, some evidence that girls mature at a more rapid rate than boys. Girls, therefore, might be expected to achieve bowel control earlier, involving as it does muscle coordination, communication and a capacity to reverse the more natural and initial process of letting go rather than holding on. The results of this study point clearly to girls being started earlier, completing sooner and taking less total time to gain bowel control.

About one out of every five mothers resorted to what may be described as punitive-forcing methods in bowel training their children. The results agreed, in general, with the findings of other studies on more limited samples. A somewhat greater proportion of mothers were harsher with boys than with girls.

The data on age at start and methods used have suggested theoretical and practical relevance for the behavior of the child and the mother-child relationship. As indicated at the outset of this report, a subsequent paper will deal with the impact of these experiences on preschool behavior problems.

Some caution is necessary in relying on the mother's report of age at start and completion of bowel training. As indicated earlier, these items have been reported as having a relatively high degree of unreliability. The similarity of the reporting in both samples in this study and the lack of significant differences in recall for mothers with older and younger children add confidence to the results of this study.

The highly educated mother was found to be more liberal in her breast-feeding practices, at least in undertaking breast-feeding, if not in its continuation. Distinct differences were observed in the toilet training practices of these same mothers. Women with college education, and more particularly four or more years of college, initiated bowel training later and were much less likely to use punitive-forcing methods. Such findings confirm a growing impression of more liberal child rearing practices among highly educated mothers. These findings will be supported by additional evidence on the usual methods of discipline employed by the mother.

It is of interest to note that the size of community differences and geographic variations reported for incidence and duration of breast-feeding were not found for age at start of toilet training.

CHAPTER IV. PUNISHMENT

Punishment is an experience which has no age limits. While the experiences of breast-feeding and toilet training may be internalized and affect other aspects of behavior, they are age restricted events in almost all instances. Breast-feeding and toilet training are also more clearly concerned with biological processes. Punishment or the broader concept of discipline not only cuts across all ages, but is more directly concerned with modification or direction of behavior. The parents' goals or values are essentially reflected in what behavior of the child is deemed punishable as well as in the method of punishment employed. Despite the emphasis of psychoanalytic theory on the early biological experiences of breast-feeding and toilet training, there is some reason to suspect that the frequency, methods and intent of punishment and discipline may at least have a more direct effect on the behavior of the child.

The importance of discipline is borne out by recent attempts to analyze the salient factors in parent-child relations. A factor analysis of the responses of a group of normal mothers to the Parent Attitude Research Instrument(32) yielded a prominent, first factor which was labelled by the investigators as "authoritarian-control".(43) The Sears, Maccoby and Levin data, based on interviews in contrast to the PARI which is an attitude questionnaire, were also factor analyzed and produced a most prominent, first factor which was related to discipline, authority and impulse control.(25)

Studies of discipline are probably more numerous than any other area of child rearing. Despite the amount of work, the area of discipline and punishment is not much different from breast-feeding or toilet training in the absence of normative data and the lack of clarity concerning the relation of discipline to the behavior of the child. Again, moreover, there are apparent changing patterns of punishment and discipline over time.

A gradual lessening of the severity of punishment, or at least what was being recommended by experts, is apparent beginning with the turn of the century.(18) Freud's emphasis on the need for gratification of instinctual drives and the movement toward progressive education led by Dewey contributed in a major way to altering attitudes toward discipline. The 1940s were probably the high point of the trend away from rigid, restrictive routines of child care. The use of ease and naturalness in socialization practices was emphasized.

Currently we are experiencing a shift to recognition of the need for limits. There are avowals by the more liberal minded that permissiveness never meant indulgence. Whether the new mode is a retreat or a redefinition, it is still not regarded with approval by those advocating more and sterner discipline. The heritage of the progressive, permissive approach is seen by the disciplinarians as the cause of delinquency, illegitimate pregnancy and student demonstrations. Reports on the "battered child syndrome" - children found to have been severely beaten by parents - suggest that not all families have liberalized their discipline practices.

Some of the research results to date also appear to raise doubts about usual methods of discipline. Punishment as such does not seem to serve the function of effective discipline.(33) There are a number of variables which need to be considered before we may speak with greater confidence of the relationship between punishment and the behavior of the child. Most important are likely to be who is doing the punishing, the sex of the punished child, the social class of the family, the intent of the punishment and the meaning for the child.

As a first approach, this report will attempt to describe what preschool children are punished for, how frequently, the methods of mothers and fathers and differential practices, if any, of families from various socioeconomic levels. The age and sex of the study child will also be considered.

What Children are Punished For

The behavior for which preschool children are punished cover a very broad range. Mothers were asked to give an example of a wrong act done lately by their child which warranted correction.

Slightly more than one-third of the mothers in both samples referring to a male child under 18 months said that their child never did anything wrong which required correction. Forty percent of the mothers replied similarly for girls of the same age (Table 22).

Table 22

EXAMPLE OF WRONG ACT OF CHILD AS REPORTED BY MOTHER
STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

EXAMPLE OF WRONG ACT	AGE OF CHILD IN MONTHS											
	Statewide						Contra Costa					
	All Ages	0-17	18-35	36-47	48-59	60-71	All Ages	0-17	18-35	36-47	48-59	60-71
	Male											
Percent of Mothers in Sample	53	15	11	8	10	8	52	10	15	10	8	10
Total Mothers Reporting[1]	100	100	100	100	100	100	100	100	100	100	100	100
Child never does wrong	12	36	2	1	2	5	8	36	-	-	-	2
Physical danger	16	10	19	16	20	15	15	5	14	29	15	15
Violating personal health	4	2	4	3	4	7	5	3	10	5	2	2
Dishonesty	3	-	1	4	4	9	4	-	-	5	6	9
Violating social rules	16	7	18	24	18	21	21	22	22	17	16	25
Nuisance, inconvenience	15	26	22	13	3	4	15	22	22	14	6	7
Misconduct toward others	19	6	16	24	29	27	19	6	21	14	31	24
Problem in maturity, personality	4	5	5	4	4	1	5	2	3	5	12	8
Direct disobedience	6	-	10	10	5	8	4	-	4	4	5	5
Misbehavior not specified; n.a.	5	8	3	1	9	3	5	4	4	6	7	4
	Female											
Percent of Mothers in Sample	47	11	14	7	7	7	48	11	17	6	7	6
Total Mothers Reporting[1]	100	100	100	100	100	100	100	100	100	100	100	100
Child never does wrong	14	45	2	5	6	8	11	45	-	5	-	1
Physical danger	11	10	19	8	3	10	15	7	21	13	17	11
Violating personal health	4	1	6	6	5	3	5	1	5	4	8	12
Dishonesty	2	-	1	3	3	6	2	-	-	9	1	4
Violating social rules	14	5	18	8	26	12	20	4	27	27	16	24
Nuisance, inconvenience	15	24	19	10	5	10	18	28	24	8	13	1
Misconduct toward others	17	3	14	27	28	22	15	6	14	16	22	24
Problem in maturity, personality	7	7	7	5	11	3	5	3	4	-	7	14
Direct disobedience	11	-	10	25	9	19	5	2	5	10	10	9
Misbehavior not specified; n.a.	4	6	3	3	5	6	3	4	-	7	6	1

n.a. Not available.

[1] Percents are computed independently and may not add to 100.

The presence of misbehavior, however, was readily apparent in older preschool children. On the basis of broad groupings, violating social rules, nuisance behavior and inconvenience, misconduct to others and behavior involving physical danger constituted the major types of wrong acts which the mother felt she had to correct. Violating social rules was high throughout the preschool period except for the earliest age group, less than 18 months old. Nuisance-inconvenience behavior was high for the first three years and then tended to drop in frequency. Acts which constituted physical danger for the child were areas of reasonably high concern, but were generally lower for very young children.

Sex differences were not consistent or readily apparent, except for the item "never does wrong" in the first year and a half.

Frequency of Punishment

Mothers in the present study were asked "about how often does...have to be punished?" There was a tendency for older preschool children in sample S to be punished more frequently than the same aged children in the CC sample. However, slightly more children under two years of age were punished in the CC sample than in sample S. These results were generally consistent with the mothers reporting on problem behavior in the two samples. Mothers in sample S indicated more problems for older aged preschoolers when compared with the CC sample. The overall results on frequency of punishment were fairly similar for both samples (Table 23).

Males in both samples tended to be punished more frequently than females. The differences were particularly noticeable for daily punishment. For both samples of preschool children, 31 percent of the mothers reported punishing their male children daily, while 24 percent indicated daily punishment for their female children (Figure 1).

Daily punishment of children in both samples and for both sexes reached its peak when children were between 18 and 36 months old. Two out of five mothers reported punishing their child daily at this age. The ratio was higher for mothers with male children in the CC sample reaching almost three out of five (Table 23).

Table 23

PERCENT DISTRIBUTION OF MOTHERS ACCORDING TO FREQUENCY OF PUNISHING CHILD BY SEX AND AGE OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

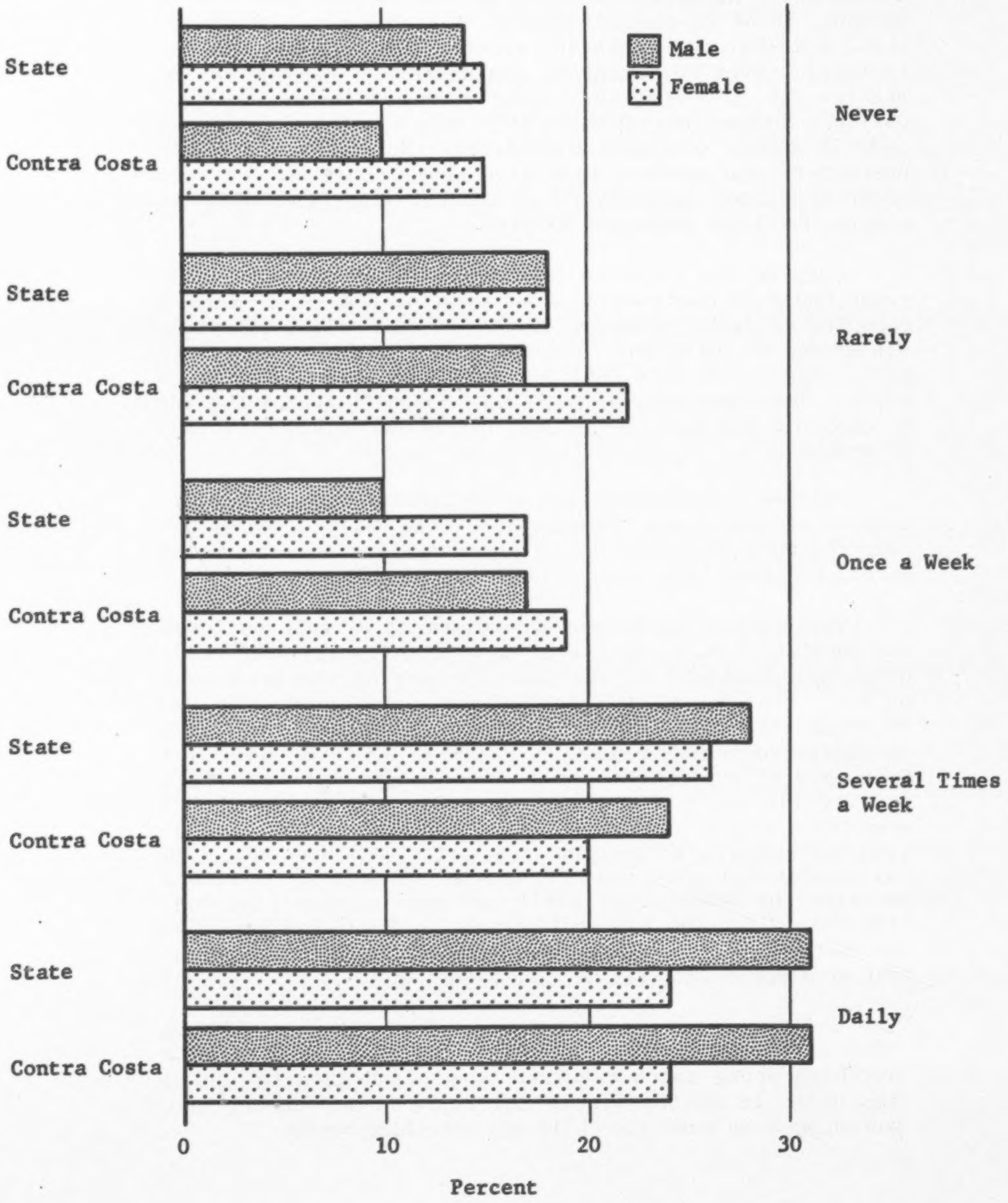
FREQUENCY OF PUNISHMENT	MALE						FEMALE					
	Age of Child in Months											
	All Ages	0-17	18-35	36-47	48-59	60-71	All Ages	0-17	18-35	36-47	48-59	60-71
	Statewide											
Percent of Mothers in Sample[1]	53	15	11	8	10	8	46	11	14	7	7	7
Total[2]	100	100	100	100	100	100	100	100	100	100	100	100
Never	14	45	2	-	1	3	15	51	3	3	2	8
Rarely	18	14	15	13	20	31	18	17	15	13	19	30
Once a week	10	4	8	16	12	16	17	5	16	16	25	30
Several times a week	28	11	36	36	33	32	26	14	29	37	28	27
Daily	31	26	40	36	34	19	24	14	37	31	27	5
	Contra Costa											
Percent of Mothers in Sample[1]	52	10	15	10	8	9	48	11	16	6	7	6
Total[2]	100	100	100	100	100	100	100	100	100	100	100	100
Never	10	42	4	-	-	2	15	55	2	6	2	3
Rarely	17	26	11	19	17	16	22	12	21	23	24	40
Once a week	17	6	8	22	22	34	19	5	16	25	33	31
Several times a week	24	3	19	32	38	36	20	7	21	32	27	19
Daily	31	23	58	27	22	12	24	21	40	14	14	7

[1] Table omits less than one percent of children for whom frequency of punishment was not ascertained.

[2] Percents are computed independently and may not add to 100.

Figure 1

PERCENT OF MOTHERS ACCORDING TO FREQUENCY OF PUNISHING PRESCHOOL CHILD BY SEX OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES



A relatively large percent of the mothers said they never punished their child when the child was under 18 months old. Slightly over half of the mothers with female children under 18 months old said that they never punished, while somewhat more than 40 percent with boys of this age indicated never resorting to punishment.* The percent of mothers who said that they never punished their preschool children dropped off dramatically when women with children over 18 months old were considered. Not more than eight percent of the mothers indicated never punishing for all older preschool ages beyond 18 months. The findings were similar for both sexes and samples

Despite the relative lack of daily punishment in the group under 18 months old, a substantial number of mothers resorted to daily punishment even for this relatively young age group of children. About one out of four mothers in both samples with male children under 18 months old punished daily. The comparable figures were somewhat less for girls in sample S and only 14 percent for female children in the CC sample.

Intermediate frequencies of punishment such as rarely, once or several times a week rather than daily or never became the more prominent pattern when mothers were reporting on older rather than younger preschool children.

The greater frequency of punishment of male children was consistent with reports of more problems for male children, particularly at the later stages of the preschool period. The peak of daily punishment noted between 18 and 36 months coincides with the so-called stage of negativism or resistive behavior usually reported for this age. The frequency of punishment for preschool children confirms a growing awareness that the early years are "problem" years even for a sample of normal children. The process of socialization appears to result in a relatively high degree of day-to-day friction between parent and child. Mothers perceive the behavior of small children as requiring considerable direction and modification. The techniques used for correction of behavior or more specifically the punishment of misbehavior will be discussed now.

*The difference in percent for mothers never punishing (Table 23) and mothers reporting their child never did anything wrong which required correction when the child was under 18 months (Table 22) represents mothers not punishing even when the child did something wrong.

Methods of Punishment

Mothers in both samples were asked, "How do you usually punish your child when you have to?" Emphasis in this question was on the usual method and on punishment rather than correction or control. The results are likely to reflect less the broader concept of discipline and more punitive action when the mother felt that it was necessary. In addition, the question does not tap the attitude of feelings of the parent when punishing. Radke, for example, found that 50 percent of mothers and fathers showed anger when disciplining their preschool child.(26)

Detailed coding of the mother's answers was carried out, but the results will be presented only for broad categories of response. A major grouping was for replies which indicated some kind of physical punishment as the usual method. The range of responses included "a slap", "a little spanking" and "a good spanking." Most mothers, however, were recorded as indicating just "spanking" without further qualification.

A second broad grouping was made out of replies which were classified as methods which isolated, coerced, or censured the child. This category included such examples of behavior as "send him to his room", "scold", "yell", "shame him" and "have him right wrong act".

Constructive methods were grouped with those involving some aspect of talking to or reasoning with the child. Also included were attempts by the parent to change the situation as their usual method of punishment. A fourth category included all responses which had the mother replying that she did not punish the child. It is possible, of course, to view constructive methods as no punishment, but there appeared to be some value in separating the two for purposes of analysis.

The results on methods of punishment will be summarized for the frequency of the various methods by age and sex of the child. Data will also be presented on the usual methods used by fathers. Methods of fathers were reported in the course of the interview with the mother.

Comparability of Statewide and Contra Costa Results

The totals for the usual method of punishment for the preschool period as a whole were quite similar for both samples. There were no significant differences between samples for the mother's usual method with male or female children ($p > .05$). The same was true for the father's usual method of punishment with boys. The father's usual method for girls showed significantly different results for the two samples ($p < .05$). Even here, however, the extent of reported use of physical punishment was the same for sample S and the CC sample (Tables 24 and 25).

Table 24

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES FOR FATHER'S AND MOTHER'S USUAL METHOD OF PUNISHING PRESCHOOL MALE CHILDREN

Percent Distribution

USUAL METHOD OF PUNISHMENT	FATHER		MOTHER	
	State-wide	Contra Costa	State-wide	Contra Costa
Percent of All Mothers in Sample	50	49	53	52
Total[1]	100	100	100	100
Corporal	44	45	54	52
Isolate, censure, coerce	21	25	29	35
Constructive	3	1	1	1
"Talk to"	8	10	2	2
No punishment	25	19	14	10
	$x^2 = 5.741$ $p > .05$		$x^2 = 5.972$ $p > .05$	

[1] Percents are computed independently and may not add to 100.

Note: Since the employment of the simple random sample error formula for these cluster samples underestimates the size of the sampling error, the use of a p of .05 represents a relatively conservative test of the independence of the samples.

Individual age groups, less than two years, two to less than four years and four to less than six years, did show significant discrepancies between samples. However, the pattern or reported frequencies for various age groups by sex of child and parental source of punishment was similar for the two samples.

Table 25

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES FOR FATHER'S AND MOTHER'S USUAL METHOD OF PUNISHING PRESCHOOL FEMALE CHILDREN

Percent Distribution

USUAL METHOD OF PUNISHMENT	FATHER		MOTHER	
	State-wide	Contra Costa	State-wide	Contra Costa
Percent of All Mothers in Sample	43	45	47	48
Total[1]	100	100	100	100
Corporal	36	36	50	50
Isolate, censure, coerce	22	29	30	31
Constructive	1	a	3	2
"Talk to"	5	9	3	4
No punishment	36	25	15	13
	$x^2 = 13.254$ $p < .05$		$x^2 = 0.884$ $p > .05$	

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Note: Since the employment of the simple random sample error formula for these cluster samples underestimates the size of the sampling error, the use of a p of .05 represents a relatively conservative test of the independence of the samples.

Frequency of Various Methods of Punishment

Half of the mothers in this study reported that they used some form of physical punishment as their usual method when they had to punish their female children. The frequencies for the use of physical punishment were only slightly higher for boys less than six years old (Table 26).

The only other study noted which involved a large, probability sample of preschool children was carried out by Anderson covering the United States in the 1930s.(1) He found that three-fourths of the children of preschool age were spanked during the month preceding the interview. Other investigators have indicated a large amount of spanking as a disciplinary technique, but not as a main method of punishment. The studies were generally with children who were, on the average, older than the children of this study. There is a noticeable lessening in the use of physical punishment as the child grows older. Sears reported that it was a rare child in his 5-year-old sample who had not been spanked, but that it was the tendency for most parents to use severe physical punishment infrequently. The groups comprising mothers who, "Fairly often slaps; occasional spanking", "Fairly often spanks; some spankings severe" and "Frequent and severe spankings; major technique of controlling child" did add to 51 percent, nevertheless, in the Sears study.(33)

Clifford(8) in a controlled, observational study of parental practices indicated that the general preference expressed was for reasoning with the child. However, Watson(38) has pointed out that Neill in an unpublished M.S. thesis, found a considerable difference in what parents and children reported on punishment in the home. Parents said that they used corporal punishment only as a last resort. Fifty percent of the children however, in Neill's study, named corporal punishment as what they expected from their parents.

Further evidence on the frequency of physical punishment with a young age group is provided by Radke.(26) She reported about 30 percent of the mothers of preschool children using physical punishment as a method of discipline in the early part of the preschool period and 65 percent in the later part. These results refer to use of physical punishment at any time, while the present study placed emphasis on the usual method employed.

The large percentage of mothers in the present study who reported using physical punishment as their usual method probably reflects, in part, a number of special factors, including the way the question was asked and the age of the children in the study. The emphasis of the question on punishment rather than on discipline or correction may have made for a more limited range of responses. Nevertheless, an analysis of preceding questions directed at determining the methods for correcting specific acts revealed an almost equally high reported use of physical punishment. It is possible that the preschool child simply offers fewer possibilities for punishment than does the older child who may be more adequately approached with verbal reasoning or censure. Whatever the reasons, it is apparent that the use of physical punishment as a punitive-disciplinary technique with preschool children is extensive. It is likely that mothers would be more inclined to under- rather than over-report the use of physical punishment at a time when there is a fair amount of professional frowning on its use.

Only a small percent of the mothers indicated the use of methods which could be classified as constructive techniques of punishment (Table 26). Such techniques would be regarded as placing less emphasis on the penalty to be paid for misbehavior and more on a resolution of the conflict. There was only a slight increase of such methods with age in the preschool samples.

Close to one-third of the mothers in both samples used isolating, censuring or coercing as their usual method of punishment. At the same time, about 15 percent in sample S said they used no punishment, therefore, reported no usual method of punishment. The percent was slightly less for the CC sample. Almost all of these mothers, as was indicated in the section on frequency of punishment, had children under two years of age.

Age Trends in Usual Method of Punishment

Watson(38) points out on the basis of previous studies that there is an increase in the amount of all kinds of punishment with age. Baldwin,(3) for example, found that parents of nine-year-old children were less warm, less indulgent and more restrictive than parents of three-year-old children. In the Anderson study(1) which covered children to 12 years of age, more children were spanked between the age of two and five than at any other age. Slightly more than three-quarters of the children in this age group were spanked. The proportion spanked in both sexes increased with age up to four years old, then decreased.

Three age groupings were used for summarizing the data on usual method of discipline: Less than two years, two to less than four years and four to less than six years. More mothers and fathers resorted to physical punishment as their usual method for children age two to less than four years than did parents with younger or older aged children. The general trend was for both mothers and fathers to have somewhat lower frequencies in the use of physical punishment with boys and girls who were less than two years old or between four and six years old (Tables 26-27). The results are similar to Anderson's findings for the United States in the 1930s.

Absence of punishment, as indicated, showed a sharp decline with age. All other methods had increases with age with the sharpest increase of all methods evident for isolating, coercive, censuring techniques.

Table 26

MOTHER'S USUAL METHOD OF PUNISHING MALE AND FEMALE CHILDREN BY AGE OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

MOTHER'S USUAL METHOD OF PUNISHMENT	AGE OF CHILD							
	Statewide				Contra Costa			
	All Ages	Under 2 Years	2 and 3 Years	4 and 5 Years	All Ages	Under 2 Years	2 and 3 Years	4 and 5 Years
	Male							
Percent of All Mothers in Sample	53	19	16	18	52	15	19	18
Total[1]	100	100	100	100	100	100	100	100
Corporal	54	51	68	44	52	47	56	50
Isolate, censure, coerce	29	12	28	47	35	23	37	44
Constructive	1	1	1	2	1	a	2	1
"Talk to"	2	1	2	5	2	-	3	4
No punishment	14	36	1	2	10	30	2	1
	Female							
Percent of All Mothers in Sample	47	18	14	15	48	16	19	13
Total[1]	100	100	100	100	100	100	100	100
Corporal	50	52	54	42	50	41	55	55
Isolate, censure, coerce	30	12	36	46	31	20	37	35
Constructive	3	1	2	5	2	-	2	4
"Talk to"	3	3	4	2	4	2	5	7
No punishment	15	32	4	5	13	37	1	-

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Table 27

FATHER'S USUAL METHOD OF PUNISHING MALE AND FEMALE CHILDREN BY AGE OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES

Percent Distribution

FATHER'S USUAL MEDHOD OF PUNISHMENT	AGE OF CHILD							
	Statewide				Contra Costa			
	All Ages	Under 2 Years	2 and 3 Years	4 and 5 Years	All Ages	Under 2 Years	2 and 3 Years	4 and 5 Years
	Male							
Percent of Mothers Reporting on Father's Method	50	18	14	18	49	14	18	17
Total[1]	100	100	100	100	100	100	100	100
Corporal	44	34	57	43	45	33	53	46
Isolate, censure, coerce	21	12	22	28	25	24	28	24
Constructive	3	2	5	2	1	1	-	3
"Talk to"	8	1	9	15	10	4	9	16
No punishment	25	51	7	12	19	38	10	12
	Female							
Percent of Mothers Reporting on Father's Method	43	17	13	13	45	15	17	13
Total[1]	100	100	100	100	100	100	100	100
Corporal	36	24	53	34	36	25	43	41
Isolate, censure, coerce	22	12	24	33	29	22	30	36
Constructive	1	1	1	1	a	-	a	2
"Talk to"	5	2	7	8	9	3	15	9
No punishment	36	61	16	24	25	51	12	13

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

2

Differences Between Fathers and Mothers

In a study of patterns of authority in succeeding generations, Bronson, et al.,(6) found a shift in the relative positions of the father and mother with the former being more affectionate and less authoritarian. The mother seemed to be emerging as the more important agent of discipline, especially for boys. Both boys and girls, however, have been reported as perceiving mothers as friendlier and less punitive.(15)

California mothers were significantly more punitive than fathers with their preschool children ($p<.001$). The differences were the result of more fathers having been reported as using no punishment. The extent of exposure of the child was not in question since the mother was asked about the usual method when the father did punish. While more mothers than fathers resorted to physical and generally coercive types of punishment, these differences reflected the larger percent of mothers than fathers who punished (Tables 28 and 29).

The absolute differences between the percent of mothers and fathers punishing were greatest in the earliest years. The percent of mothers as well as fathers punishing increased with the age of the child. Only the smallest fraction of mothers did no punishing after the child was two years old, whereas a fair proportion of fathers continued not to do any punishing. It is also of interest that as older preschool children were considered, fathers more than mothers were found to use increasingly more constructive methods such as talking to the child.

The California data clearly support the view that mothers do more punishing than fathers, at least as far as the mother's reports were concerned. Furthermore, there was no evidence that the father became more of the disciplinarian in the home with increasing age of the preschool child. The mother is or has become the primary source of punishment. The perception of her as more friendly by both boys and girls in other studies may be indicative of the fact that the extent and frequency of punishment are not sufficient criteria for being perceived as an unfriendly or less friendly parent. Fantasy and expectation may be important also.

Table 28

COMPARISON OF FATHER'S AND MOTHER'S USUAL METHOD OF PUNISHING MALE AND FEMALE CHILDREN BY AGE OF CHILD STATEWIDE SAMPLE

Percent Distribution of Mothers Reporting

USUAL METHOD OF PUNISHMENT	AGE OF CHILD							
	ALL AGES		UNDER 2 YEARS		2 AND 3 YEARS		4 AND 5 YEARS	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother
	Male							
Percent of Mothers Reporting	50	53	18	19	14	16	18	18
Total[1]	100	100	100	100	100	100	100	100
Corporal	44	54	34	51	57	68	43	44
Isolate, censure, coerce	21	29	12	12	22	28	28	47
Constructive	3	1	2	1	5	1	2	2
"Talk to"	8	2	1	1	9	2	15	5
No punishment	25	14	51	36	7	1	12	2
	Female							
Percent of Mothers Reporting	43	47	17	18	13	14	13	15
Total[1]	100	100	100	100	100	100	100	100
Corporal	36	50	24	52	53	54	34	42
Isolate, censure, coerce	22	30	12	12	24	36	33	46
Constructive	1	3	1	1	1	2	1	5
"Talk to"	5	3	2	3	7	4	8	2
No punishment	36	15	61	32	16	4	24	5

[1] Percents are computed independently and may not add to 100.

Table 29

COMPARISON OF FATHER'S AND MOTHER'S USUAL METHOD OF PUNISHING MALE AND FEMALE CHILDREN BY AGE OF CHILD
CONTRA COSTA SAMPLE

Percent Distribution of Mothers Reporting

USUAL METHOD OF PUNISHMENT	AGE OF CHILD							
	ALL AGES		UNDER 2 YEARS		2 AND 3 YEARS		4 AND 5 YEARS	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother
	Male							
Percent of Mothers Reporting	49	52	14	15	18	19	17	18
Total[1]	100	100	100	100	100	100	100	100
Corporal	45	52	33	47	53	56	46	50
Isolate, censure, coerce	25	35	24	23	28	37	24	44
Constructive	1	1	1	a	-	2	3	1
"Talk to"	10	2	4	-	9	3	16	4
No punishment	19	10	38	30	10	2	12	1
	Female							
Percent of Mothers Reporting	45	48	15	16	17	19	13	13
Total[1]	100	100	100	100	100	100	100	100
Corporal	36	50	25	41	43	55	41	55
Isolate, censure, coerce	29	31	22	20	30	37	36	35
Constructive	a	2	-	-	a	2	2	4
"Talk to"	9	4	3	2	15	5	9	7
No punishment	25	13	51	37	12	1	13	-

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Sex Differences

We are likely to expect that boys and girls are treated differently by their parents. However, for the preschool period as a whole, there were no significant sex differences in the usual method of punishment of the mother ($p>.05$) (Tables 28 and 29). The lack of differences was evident in both samples. Fathers did, however, react with significantly less punishment of girls than boys ($p<.001$, sample S and $p<.05$, CC sample).

In the Statewide sample the chief differences at all ages in the father's punishment methods was the greater proportion of girls never punished. One-third of the girls were never punished by their father during the preschool period, whereas only somewhat less than one-quarter of the boys were never punished. The extent to which fathers used physical punishment as a usual method was about the same for boys or girls, if the total sample was considered. In the earliest preschool years, however, fathers resorted to slightly more physical punishment, isolation, or nonspecific punishment of boys as contrasted with more verbal censure of girls. The reverse was true for the later preschool years. However, as pointed out, the basic difference in the father's approach to male and female children was the relatively greater proportion of girls never punished. It should be emphasized again that opportunity or rate of exposure of the parent to the child is not relevant here, because the question to the mother was concerned with the parent's usual method when they had to punish.

The Contra Costa sample showed the same general trend for sex differences in the father's punishment of preschool children. Differences, however, in proportion never punished were only slight in the later preschool years. The lack of differences reflected the generally low rate of girls never punished by their father in the CC sample for the later preschool years.

In general, for both samples, mothers reported fathers as punishing a larger proportion of boys than girls. There were only slight variations in the usual method of punishment used by the father for boys or girls. It is not clear whether mothers simply see their husbands as less punitive with their daughters or whether these basic differences do in fact exist. The results fit, however, with our stereotype of the greater permissiveness in the father-daughter relatiohship when compared with the father-son relationship.

Socioeconomic Status and Punishment

Socioeconomic status was unrelated to frequency of punishment except for some tendency of higher income families to punish with intermediate frequency. More high income families reported punishing once or several times a week, while more low income families indicated daily or no punishment (Table 30).

The mothers' use of physical punishment, however, showed a definite relationship to the education of the mother and to a lesser extent the occupation of the head of the household. The relationships were more apparent for the mothers' use of physical punishment with girls.

Several studies in the past have found discipline practices to vary with the socioeconomic status of the family. Anderson(1) in his National Survey reported more spanking by families of lower socioeconomic status. He also notes that the frequency as well as the use of spanking was greater in lower socioeconomic groups. The findings of Anderson are part of what Bronfenbrenner(5) has summarized as a consistent result in a number of studies.

The present study has analyzed the use of physical punishment by socioeconomic variables in greater detail than has been the usual practice of previous investigations. The data support only in part the generally accepted view that the so-called lower classes are more punitive in their disciplinary practices than middle-class families.

Education and Punishment

Again mothers with four or more years of college were the most lenient group (Table 31). Their rate for the use of physical punishment of girls was the lowest of any of the mothers. In the CC sample there was a sharp decrease in physical punishment of girls with any college education of the mother. In sample S, the noticeable decrease was with four or more years of college education. Differences for college versus noncollege mothers in the use of physical punishment with female children was significant for both samples (sample S, $p < .05$; sample CC, $p < .001$).

Mothers with four or more years of college showed only a slight decline in the use of physical punishment with male children. The results were the same for both samples. Differences between college and noncollege mothers were not significant.

Table 30

PERCENT DISTRIBUTION OF MOTHERS ACCORDING TO FREQUENCY OF PUNISHING CHILD BY EDUCATION OF MOTHER, OCCUPATION OF HEAD OF HOUSEHOLD, AND FIMILY INCOME, SEPARATELY BY SEX OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES

FREQUENCY OF PUNISHMENT	STATEWIDE				CONTRA COSTA			
	Male		Female		Male		Female	
	By Education of Mother							
	No College	College	No College	College	No College	College	No College	College
Percent of All Mothers in Sample	44	10	38	9	41	11	36	12
Total[1]	100	100	100	100	100	100	100	100
Never, rarely	31	32	34	30	29	19	38	35
Weekly, several times weekly	36	42	43	41	40	46	38	42
Daily	33	26	23	30	31	35	24	23
	By Occupation of Head of Household							
	Blue Collar	White Collar	Blue Collar	White Collar	Blue Collar	White Collar	Blue Collar	White Collar
Percent of All Mothers in Sample	33	21	27	20	33	19	28	20
Total[1]	100	100	100	100	100	100	100	100
Never, rarely	33	28	36	29	28	24	40	33
Weekly, several times weekly	35	42	40	46	41	42	37	42
Daily	32	30	24	25	31	34	23	25
	By Family Income							
	Under $5,000	$5,000 and Over	Under $5,000	$5,000 and Over	Under $5,000	$5,000 and Over	Under $5,000	$5,000 and Over
Percent of All Mothers in Sample	27	26	21	25	25	27	20	28
Total[1]	100	100	100	100	100	100	100	100
Never, rarely	35	27	34	32	34	20	39	36
Weekly, several times weekly	31	44	39	46	34	48	33	43
Daily	34	29	27	22	32	32	28	21

[1] Percents are computed independently and may not add to 100.

Mothers with less than eight years of schooling, the least educated group in the study, reported almost as little use of physical punishment for both boys and girls in the CC sample as did highly educated mothers for girls in both samples. In general there was a curvilinear relation between education of the mother and use of physical punishment. It will be recalled that a similar relation was noted for breast-feeding and education.

Table 31

PERCENT OF MOTHERS USING PHYSICAL PUNISHMENT AS USUAL METHOD OF PUNISHMENT BY EDUCATION OF MOTHER AND SEX OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES

EDUCATION OF MOTHER	PERCENT OF MOTHERS IN EACH EDUCATION GROUP USING PHYSICAL PUNISHMENT AS USUAL METHOD			
	Statewide		Contra Costa	
	Male	Female	Male	Female
8 Years or Less	42	49	34	33
9-11 Years	51	50	57	60
12 Years	56	52	54	55
1-3 Years of College	59	50	53	44
4 or More Years of College	56	32	46	31
No College	52	51	53	55
College	58	44	49	38

Occupation and Punishment

The curvilinear relationship observed with education was also apparent when use of physical punishment was analyzed in relation to the occupation of the head of the household (Table 32). An exception was the 59 percent of the professional-managerial group with male children in the Statewide sample. A comparison between "blue" and "white collar" workers showed no significant differences. The lack of difference resulted from the curvilinear relation between occupation and physical punishment.

Table 32

PERCENT OF MOTHERS USING PHYSICAL PUNISHMENT AS USUAL METHOD OF PUNISHMENT BY OCCUPATION OF HEAD OF HOUSEHOLD AND SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

OCCUPATION OF HEAD	PERCENT OF MOTHERS IN EACH OCCUPATION GROUP USING PHYSICAL PUNISHMENT AS USUAL METHOD			
	Statewide		Contra Costa	
	Male	Female	Male	Female
Farm Laborers, Laborers	49	47	40	40
Operatives and Service Workers	50	45	45	49
Craftsmen and Foremen	55	59	66	64
Clerical, Sales	47	51	51	64
Professional, Managerial	59	45	50	40
Blue Collar	52	51	53	54
White Collar	55	47	50	46

Income and Punishment

There was no consistent pattern in the relation between family income and the use of physical punishment (Table 33). Mothers from families with the highest income ($8,000 and over) did resort to physical punishment as their usual method less frequently in both samples. Differences, however, between families with incomes below $5,000 and those of $5,000 and over were not statistically significant, nor were these differences consistent in both samples for male children. Both samples did show slightly higher rate in physical punishment of girls by mothers in families with incomes below $5,000.

As with breast-feeding and toilet training, of the several socioeconomic variables, the education of the mother appeared to have the strongest association with the use of physical punishment. The mother with four or more years of college used significantly less physical punishment with female children. Differences between male and female children have not been clear from previous studies, nor has the particularly distinctive approach of the highly educated mother.

Table 33

PERCENT OF MOTHERS USING PHYSICAL PUNISHMENT AS USUAL METHOD OF PUNISHMENT BY ANNUAL FAMILY INCOME AND SEX OF CHILD, STATEWIDE AND CONTRA COSTA SAMPLES

ANNUAL FAMILY INCOME	PERCENT OF MOTHERS IN EACH INCOME GROUP USING PHYSICAL PUNISHMENT AS USUAL METHOD			
	Statewide		Contra Costa	
	Male	Female	Male	Female
Under $3,000	54	57	46	46
3,000-3,999	52	42	56	55
4,000-4,999	46	57	62	52
5,000-5,999	58	53	45	48
6,000-7,999	58	48	57	58
8,000 and Over	51	44	37	40
Under $5,000	50	51	56	52
5,000 and Over	57	48	48	50

The low rate in the use of physical punishment by mothers with less than eight years of schooling is not consistent with the results of other investigations. Previous studies have not considered this group as such, making, in the main, broader comparisons such as lower- versus middle-class mothers. It is possible that these mothers with relatively little education were less prone to admit punitive practices to an interviewer. They would have been the least likely to have understood the purposes of the survey, and even, perhaps, feared reprisals from a public agency. However, previous studies might well have suffered from the same bias. It is also possible that the smaller number of these mothers using physical punishment as a usual method was part of a general pattern of neglect rather than leniency. However, the rate of no punishment at all in this group was not different than for other educational groups. If we depart from the conventional view that all groups of lower-class mothers are more punitive, we may regard this lowest of low educational groups as perhaps not as harsh, relatively speaking, as they have been represented in the grosser classification of lower-class mothers in previous studies.

Summary and Discussion of Punishment

Factor analysis has pointed to control of the child or restrictive practices of the parents as a salient, first factor in parent-child relations. Historically there would appear to be a change from harsher disciplinary techniques to more psychological methods of dealing with misbehavior of children. Nevertheless there are indications of persistence in the use of physical punishment as a way of correcting child behavior. There is also some evidence that the use of physical punishment may not be very effective in the reduction of aggressive-resistive behavior of children.

The present study, preliminary to an exploration of the association of punishment and the problem behavior of the preschool child, was concerned with what the child is punished for, how frequently, the methods used by mothers and fathers, any differences in practices toward boys and girls and differential approaches of families from various socioeconomic levels.

Acts of children typically corrected by parents during the preschool period may be described as nuisance and inconvenience behavior, violation of social rules, misconduct toward others and acts involving physical danger to the child. More boys than girls were reported as misbehaving in the early preschool months, that is, under 18 months of age. However, there were no apparent sex differences for the totals of the preschool period in regard to the type of acts typically corrected. Some variation was observed in the frequencies of particular types of acts for specific preschool ages.

Males in general were punished more frequently than female children. Differences were particularly noticeable for mothers who reported punishing daily. The peak of daily punishment for both sexes was between 18 and 36 months. The percent never punished dropped sharply after the child was 18 months old. After this age very few children were never punished. Intermediate frequencies of punishment became the predominant pattern for older preschool children. The frequency of punishment in the preschool years would appear to emphasize the early years as problem years in the relations of parent and child.

Half of the mothers in California reported using some form of physical punishment when asked what their usual method of punishment was. The frequency in the use of physical punishment by the mother as a usual method was only slightly higher for boys than for girls.

The seemingly extensive use of physical punishment in this study was consistent with the results from other preschool populations, but higher than what has been reported for older children. As with the frequency of punishment, the mothers of children two to less than four years old reported the highest rate of physical punishment as their usual method.

There was apparently little use of so-called constructive methods during the preschool period. Apart from the restriction of the question to punishment, the age of the child was likely to limit the use of such methods as "talking to" or reasoning. In addition, the high frequency in the use of physical punishment did not necessarily reflect very severe punishment in that most mothers reported "spanking" which may have ranged from slapping to more severe physical punishment.

Mothers were significantly more punitive than fathers. The extent of exposure to the child was not in question since the mother was asked about the usual method when the father did punish. There was no real change in this difference between mothers and fathers with increasing preschool age. Fathers tended to use more constructive methods when called upon to punish.

Mothers showed no differences in their methods of punishment for boys or girls. Fathers as reported by mothers distinctly punished girls less than boys, but their use of physical punishment relative to other methods was not different for boys or girls.

The frequency of punishment, regardless of method, showed little relationship to socioeconomic variables. However, in higher income groups, mothers used more intermediate frequencies rather than daily, or never.

The mothers' use of physical punishment was definitely related to the extent of her education and the occupational status of the head of the household. Mothers with four or more years of college resorted least to physical punishment as a usual method with girls. Mothers with very little education, eight years or less, had the lowest rate with boys. Both samples for boys and girls showed some curvilinearity. Higher rates were found for mothers with intermediate amounts of education. The same general curvilinear relationship was apparent between the use of physical punishment by the mother and the occupation of the head of the household. Income showed little or no association with the mothers' use of physical punishment.

CHAPTER V. PATTERNS OF CHILD REARING PRACTICES

The results of this study point to the significant influence of the mother's education on her choice of child rearing techniques. Women with some college education, but more particularly four or more years of college, had a higher rate of starting to breast-feed, began bowel training later with less severe methods, and did not use physical punishment as much as other mothers. A relatively large percent of the least educated mothers with less than eight years of schooling also started breast-feeding and fewer of these mothers used physical punishment as a usual method. The findings suggest some consistency in at least special educational groups. Data on the relation of occupation to child rearing practices supported, in part, the results on education.

The results from previous research are not clear. Sewell and Associates,(34) in a study of middle class, native American families, found relatively few consistent relationships among specific child rearing practices. They questioned the assumption of a pervasive philosophy of permissiveness of strictness. Sears,(33) on the other hand, found an underlying dimension of permissiveness - strictness in his study of 400 mothers of kindergarten children.

Sewell, despite denying a general factor among specific child rearing practices, thought it possible that "a more sophisticated group of mothers, e.g., wives of professional men or other urban middle- or upper-class mothers,who may be better informed about current child rearing theories would show more consistency in their child training practices".(34, p. 140) This view is supported by evidence that parents with higher socioeconomic status are in fact in closer touch with regular channels of communication concerning currently preferred child rearing techniques.(1,5,40)

The pattern of correlations among the child rearing variables in the two preschool samples of this study showed a significant, positive relationship among the three punishment variables, mother's method of punishment father's method of punishment and frequency of punishment (Table 34). Method of bowel training was also significantly related to punishment in the Statewide sample with mothers who were more punitive in their general punishment of the child also using more coercive toilet training methods. The results on the relation between bowel training and punishment were not supported by the findings in the Contra Costa sample.

Table 34

CORRELATIONS AMONG SELECTED CHILD REARING-VARIABLES IN TWO PRESCHOOL SAMPLES, SEPARATELY BY SEX OF CHILD STATEWIDE AND CONTRA COSTA SAMPLES

(Boys Above, Girls Below The Diagonal)

	BREAST-FEEDING	MOTHER'S USUAL METHOD OF PUNISHMENT	FATHER'S USUAL METHOD OF PUNISHMENT	FREQUENCY OF PUNISHMENT	AGE AT START OF BOWEL TRAINING	METHOD OF BOWEL TRAINING
	Statewide					
	Male N = 276 Female N = 243					
Breast-Feeding		.01	-.11	.01	.00	.08
Mother's Usual Method of Punishment	-.05		$.\underline{31}$	$.\underline{25}$	.04	$.\underline{17}$
Father's Usual Method of Punishment	-.03	$.\underline{32}$		$.\underline{22}$	-.02	.03
Frequency of Punishment	.02	$.\underline{27}$	$.\underline{28}$		.03	.10
Age at Start of Bowel Training	-.01	-.08	-.10	-.16		-.05
Method of Bowel Training	.01	$.\underline{18}$	.00	.13	-.09	
	Contra Costa					
	Male N = 290 Female N = 257					
Breast-Feeding		-.05	-.07	-.08	-.02	-.04
Mother's Usual Method of Punishment	-.02		$.\underline{39}$	$.\underline{23}$	-.05	.08
Father's Usual Method of Punishment	.01	$.\underline{33}$		$.\underline{30}$	-.05	.08
Frequency of Punishment	-.12	$.\underline{18}$	$.\underline{25}$		-.14	.11
Age at Start of Bowel Training	.01	-.05	-.06	.02		$-.\underline{18}$
Method of Bowel Training	.05	-.03	.01	.05	.06	

Note: Only a correlation with a $p<.01$ was considered to be significantly different from zero because of the affects of cluster sampling on the sampline errors.
Underlined entries significant beyond the .01 level.

Breast-feeding appeared to be the most independent of the several child rearing variables. None of the correlations relating breast-feeding to the other child rearing variables was significant.

The indications that a punishment dimension was present in both general populations was confirmed by a cluster analysis of the data according to methods developed by Tryon.(36) The only child rearing cluster to emerge from an analysis of 26 socioeconomic, child rearing, ethnic and size of family variables was a punishment cluster. Data on the results of the cluster analysis, including behavior problems of preschool children will be presented in a subsequent report.

Four child rearing practices were dichotomized and somewhat arbitrarily defined as liberal or not in a further attempt to assess how general and consistent was the permissiveness of the highly educated mother. Breast-feeding, starting bowel training when the child was one year or older, using nonpunitive methods of training, and managing misbehavior of the child without recourse to physical punishment as a usual method were classified as liberal practices.

Table 35

A COMPARISON OF THE DISTRIBUTION OF MOTHERS IN THE STATEWIDE AND CONTRA COSTA SAMPLES ACCORDING TO THE NUMBER OF "LIBERAL" CHILD REARING PRACTICES

NUMBER OF "LIBERAL" CHILD REARING PRACTICES	STATEWIDE	CONTRA COSTA
Percent of All Mothers in Sample[1]	79	81
Total	642	658
4 Liberal practices	57	47
3	199	177
2	245	276
1	121	145
0	20	13
	$x^2 = 7.54$ $p > .05$	

[1] Table omits mothers who had not begun bowel training.

Mothers who did not follow these practices were placed in the group defined as not liberal. Distributions were secured for both samples on how many mothers were classified with 4, 3, 2, 1, or 0 liberal practices. The limited number of mothers with four or more years of college in both samples prevented a breakdown by sex of child.

The frequency distribution on the number of liberal practices was not significantly different when the Statewide and Contra Costa samples were compared ($p > .05$, Table 35).

Forty percent of all mothers in California reported at least three liberal practices (Table 36). Only three percent had none. Highly educated mothers were even more liberal. Over half of the mothers in California who had four or more years of college were found to have at least three

Table 36

PERCENT DISTRIBUTION OF MOTHERS ACCORDING TO NUMBER OF "LIBERAL" CHILD REARING PRACTICES, BY EDUCATION OF MOTHER, STATEWIDE AND CONTRA COSTA SAMPLES

NUMBER OF "LIBERAL" CHILD REARING PRACTICES	STATEWIDE			CONTRA COSTA		
	Education of Mother					
	Total	Four or More Years of College	Less Than Four Years of College	Total	Four or More Years of College	Less Than Four Years of College
Percent of All Mothers in Sample[1]	79	4	75	81	8	73
Total	100	100	100	100	100	100
4 "Liberal" practices	9	18	8	7	23	5
3	31	33	31	27	33	26
2	38	36	38	42	30	43
1	19	10	19	21	14	23
0	3	3	3	2	-	2
	$x^2 = 3.85$ $p > .05$			$x^2 = 28.22$ $p < .001$		

[1] Table omits mothers who had not begun bowel training.

Note: Percents are rounded independently and may not add to 100.

liberal practices. The difference between these mothers and those with less than four years of college was significant in the Contra Costa sample ($p<.001$), but not for the State-wide sample. Differences for the latter were evident, however, and in the same direction as in the Contra Costa sample (Table 36).

In general, California would appear to have mothers with a higher degree of consistency and liberality or permissiveness than mothers from other studies and geographic areas. In particular, a subgroup of mothers with four or more years of college was significantly consistent in breast-feeding, starting bowel training relatively late with nonpunitive methods and using physical punishment less for the misbehavior of their preschool children.

While the least educated group of mothers in both samples was not studied in detail for consistency of their child rearing practices, there was some evidence that in breast-feeding and the use of less punitive methods of punishment, these mothers also departed significantly from the general population.

CHAPTER VI. CHILD REARING IN SUMMARY

The present study was concerned with the child rearing practices of mothers with young children less than six years old. Data were available from two large samples covering relatively broad geographic areas, the State of California and the metropolitan County of Contra Costa in California. The purpose of the study was to provide normative data on three child rearing practices: Breast-feeding, bowel training and discipline. Methods of child rearing were also analyzed in relation to the socioeconomic status of the family.

Despite considerable speculation and some research, there are little representative data on child rearing practices. The results of this study are based on probability samples so that estimates are available for the total population with calculable precision. In addition, the two household surveys were conducted with the same interview procedures and questions providing for a comparison of the results from the two samples, an added test of reliability.

The education of the California mother was clearly an important influence on her choice of child rearing practices. More particularly, a relatively large proportion of highly educated mothers with four or more years of college, breast-fed, started bowel training their children comparatively late without coercive-punitive methods and used physical punishment less than other mothers as a usual method of correcting deviant behavior of their preschool children. Most mothers living in highly populated metropolitan centers had a low incidence of breast-feeding. The women with four or more years of college, living in these same metropolitan areas, had the highest rate of starting to breast-feed.

The greater degree of permissiveness and nurturance of the highly educated mother was consistent in all areas of child rearing considered, except duration of breast-feeding. The results for mothers with some college education were not consistent for the several child rearing practices nor were they reliable when both samples were considered.

At the other end of the educational spectrum, women with less than eight years of schooling started breast-feeding almost as frequently as the highly educated mother and were surprisingly low in their use of physical punishment, perhaps for different reasons.

The influence of other socioeconomic variables on child rearing practices was not as definite as education. The results for occupation of head of household generally supported the findings on the influence of education. Family income appeared to be the least important of the three socioeconomic variables. The specific role of the mother's education has not been so evident in previous studies of child rearing practices, but has been apparent in other areas of care for the psychological and physical health of the child.

The child rearing practices of the college mother are very close to what is currently recommended by those professionally concerned with the preschool child's care. Mothers with a college education appear to be responding, in part, to prevailing opinion and advice which reaches them more readily than less educated mothers through ladies' magazines, pediatricians, educators and some of the professional literature. These mothers undertake what they perceive as the correct manner of meeting their children's needs. Perhaps the commitment to a nurturant-permissive approach is not total, however. The high rate of starting to breast-feed, but the relatively short duration is suggestive of ambivalence.

The least educated mothers continue to do what comes naturally. Their high rate of starting to breast-feed and their comparatively longer duration than other mothers, reflect a continuation of traditional methods probably without the need for encouragement from the child care expert. Whether the least educated mothers and the very low socioeconomically placed women are generally more permissive is open to question. The relative absence of physical punishment as a usual method of discipline among these mothers is to some extent contrary to the results of previous studies. There is also a hint in this study of greater permissiveness in methods of bowel training by mothers with little education.

California mothers seem more permissive and nurturant in responding to the biological needs of their children than in dealing with their aggressive-resistive behavior. A high proportion of the mothers did have liberal practices which included two of the three areas of child rearing studied. Slightly over 40 percent started to breast-feed placing California in the upper third of the Nation. California mothers also started and completed bowel training their children at ages closer to recommended pediatric norms than did mothers in other studies from several different regions of the country. Only one out of five mothers in California used coercive-punitive methods in toilet training, about the same proportion reported elsewhere.

The use of physical punishment as a usual method of discipline was high, however, in both California samples. Half of the mothers in California indicated that they usually used some kind of physical punishment when called upon to discipline their children. No direct comparisons were possible with other studies, but use of physical punishment by mothers of preschool children appeared to be generally high. Punishment by all methods was not infrequent in this study. Almost one-third of all mothers punished their preschool boys daily and 24 percent reported punishing their preschool daughters daily.

What seems to be an excessive use of physical punishment with very young children may be a function of the more limited means available for punishing a preschool child. Furthermore, physical punishment of the child was mainly reported as spanking. Sufficient data were not available to permit analysis of the severity of the physical punishment.

Perhaps the seemingly greater permissiveness and nurturance in breast-feeding and toilet training suggest that parents are becoming more comfortable in dealing with the biological functions and needs of children. The expression of anger by children or direct resistance to authority, on the other hand, are more openly interpersonal and challenging and may still be difficult to manage. Unfortunately the use of physical punishment has not proved to be an effective method for changing behavior. The use of force, even a slap, as a usual method of punishment provides the child with a repeated example of how conflict may be managed.

Mothers showed no greater propensity to start breast-feeding boys or girls. Duration of breast-feeding was also the same for either sexed child in the Statewide sample, but girls were nursed longer than boys in the metropolitan County of Contra Costa. Girls were started on learning sphincter control at an earlier age, completed earlier and took less time to learn for any given age group. Mothers used coercive-punitive methods in bowel training somewhat more frequently with boys. They did not show any significant differences in their usual method of punishing preschool boys or girls. Fewer boys, however, were reported as never doing wrong and daily punishment was consistently more evident for boys at all preschool ages. The smaller proportion of highly educated mothers who used physical punishment was more apparent in relation to girls. Fathers who generally punished less than mothers also punished their daughters less than their sons.

There is some suggestion in the data that the socialization process for girls is easier. Girls do mature at a more rapid rate in the early years. They accomplish some developmental tasks more rapidly creating, perhaps, less friction. The question of what impact the several child rearing approaches have on the immediate and subsequent behavior of the child must await an analysis of the relation of child rearing practices to behavior. Preliminary results indicate that, of the three child rearing procedures studied, breast-feeding, bowel training, and punishment, the last has the greatest immediate influence on behavior problems.

The comparison of the findings for the two samples, one covering the entire State and the other a metropolitan County, indicated a high degree of similarity in many areas. Incidence of breast-feeding showed significant variation based on the geographic differences between the two samples. Some highly detailed results also revealed sample differences. In general, however, the consistency in the results for the two samples and the representative nature of both samples make it possible to draw some general conclusions about child rearing practices of mothers with young children. The extent to which mothers were reporting actual practices is, of course, not clear and invites some caution in the interpretation of the data.

As usual the most impressive finding is the factual revelation of the complexity of any aspect of human behavior. The child rearing practices of mothers with their preschool children are no exception.

APPENDICES

Appendix A
    Tables: A-1 through A-11

Appendix B
    Tables: B-1 and B-2

Appendix C
    Questionnaire

Appendix D
    Bibliography

APPENDIX A

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES

Table A-1

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
AGE OF STUDY CHILD

Percent Distribution

AGE OF CHILD	STATEWIDE	CONTRA COSTA
Total, All Study Children[1]	100	100
0-11 months	17	13
12-23	20	17
2-3 years	15	22
3-4	15	16
4-5	17	15
5-6	16	16

[1] Percents are computed independently and may not add to 100.

Table A-2

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
SEX OF STUDY CHILD

Percent Distribution

SEX OF CHILD	STATEWIDE	CONTRA COSTA
Total, All Study Children	100	100
Male	53	52
Female	47	48

Table A-3

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES AGE OF MOTHER AT TIME OF INTERVIEW

Percent Distribution

MOTHER'S AGE AT INTERVIEW	STATEWIDE	CONTRA COSTA
Total, All Mothers[1]	100	100
Under 20 Years	4	3
20-24	20	18
25-29	26	28
30-34	26	28
35-39	17	16
40 and Over	8	7

[1] Percents are computed independently and may not add to 100.

Table A-4

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES EDUCATION OF MOTHER

Percent Distribution

MOTHER'S EDUCATION	STATEWIDE	CONTRA COSTA
Total, All Mothers[1]	100	100
8 years or less	13	9
9-11 years	25	29
12 years	43	39
1-3 years of college	13	12
4 or more years of college	6	11

[1] Percents are computed independently and may not add to 100.

Table A-5

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
FAMILY INCOME IN 1955

Percent Distribution

FAMILY INCOME	STATEWIDE	CONTRA COSTA
Total, All Families[1]	100	100
Less than $3,000	14	9
3,000-3,999	17	11
4,000-4,999	17	24
5,000-5,999	19	21
6,000-7,999	19	21
8,000 and over	13	13
Not available	1	2

[1] Percents are computed independently and may not add to 100.

Table A-6

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
OCCUPATION OF HEAD OF HOUSEHOLD

Percent Distribution

OCCUPATION OF HEAD	STATEWIDE	CONTRA COSTA
Total, All Heads of Households[1]	100	100
Farm laborers; laborers[2]	8	8
Operatives and service workers	23	27
Craftsmen and foremen	24	24
Clerical, sales	12	10
Professional, managerial[3]	27	27
Not in labor force, not available	6	5

[1] Percents are computed independently and may not add to 100.
[2] Except mine laborers who are included with "operatives."
[3] Includes farmers and farm managers.

Table A-7

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
ETHNIC BACKGROUND OF MOTHER

Percent Distribution

ETHNIC BACKGROUND OF MOTHER	STATEWIDE	CONTRA COSTA
Total, All Mothers[1]	100	100
United States Negro	7	8
Latin American mother[2]	8	5
Mother foreign-born (except Latin American)	5	5
Both parents of mother foreign-born (except Latin American)	10	8
One parent of mother foreign-born (except Latin American)	7	7
Both parents of mother native-born	64	68

[1] Percents are computed independently and may not add to 100.
[2] Mother or either parent of mother born in Latin America.

Table A-8

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES
PERCENT DISTRIBUTION OF MOTHERS BY LENGTH OF RESIDENCE IN LOCAL COMMUNITY

YEARS IN LOCAL COMMUNITY	STATEWIDE	CONTRA COSTA
Total, All Mothers[1]	100	100
Less than 1 year	18	12
1 year up to 2 years	12	15
2 up to 3 years	9	12
3 up to 4 years	8	10
4 up to 5 years	7	8
5 up to 6 years	6	8
6 up to 9 years	15	15
10 or more years	19	17
Entire life	6	3
No mother in household; not available	-	a

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Table A-9

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES NUMBER OF CHILDREN OF ALL AGES IN THE FAMILY

Percent Distribution

NUMBER OF CHILDREN IN FAMILY	STATEWIDE	CONTRA COSTA
Total, All Families[1]	100	100
1 child	25	19
2 children	35	36
3	22	25
4	8	9
5	6	6
6	2	3
7	2	1
8 or more	1	1

[1] Percents are computed independently and may not add to 100.

Table A-10

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES NUMBER OF CHILDREN UNDER SIX YEARS OF AGE IN THE FAMILY

Percent Distribution

NUMBER OF CHILDREN UNDER 6 YEARS	STATEWIDE	CONTRA COSTA
Total, All Families[1]	100	100
1 child	61	56
2 children	29	32
3	8	10
4	1	1
5	[a]	1

[1] Percents are computed independently and may not add to 100.

[a] Less than 0.5 percent.

Table A-11

COMPARISON OF STATEWIDE AND CONTRA COSTA SAMPLES PERCENT DISTRIBUTION OF FAMILIES BY AGE OF CHILD WHEN MOTHER FIRST WENT TO WORK

AGE OF CHILD WHEN MOTHER WORKED	STATEWIDE	CONTRA COSTA
Total, All Families[1]	100	100
Under 1 year	18	13
1 year up to 2 years	6	7
2 up to 3 years	5	6
3 up to 6 years	5	3
Has not worked since birth of study child	65	70
Don't know; not ascertained	1	1

[1] Percents are computed independently and may not add to 100.

APPENDIX B

SAMPLING ERRORS FOR STATEWIDE AND CONTRA COSTA SAMPLES

Table B-1

SAMPLING ERROR OF RATES: STATEWIDE SAMPLE

Percent or Rate Per 100 (r)	3	5	10	15	20	25	30	40	50	60	70	80	90
$V_r^2 \sum Y$	48.0	28.0	12.0	7.5	5.2	3.9	3.0	2.1	1.5	1.0	0.6	0.35	0.15

Estimated 2s - Twice Standard Error of Percent

Percent of Sample	Y (Denominator)													
100	906	1.38	1.76	2.30	2.73	3.03	3.28	3.45	3.85	4.07	3.99	3.60	3.14	2.32
90	815	1.46	1.85	2.43	2.88	3.19	3.46	3.64	4.06	4.29	4.20	3.80	3.31	2.44
80	725	1.54	1.97	2.57	3.05	3.39	3.67	3.86	4.31	4.55	4.46	4.03	3.52	2.59
75	680	1.59	2.03	2.66	3.15	3.50	3.79	3.99	4.45	4.70	4.60	4.16	3.63	2.67
70	634	1.65	2.10	2.75	3.26	3.62	3.92	4.13	4.60	4.86	4.77	4.31	3.76	2.77
60	544	1.78	2.27	2.97	3.52	3.91	4.24	4.46	4.97	5.25	5.15	4.65	4.06	2.99
50	453	1.95	2.49	3.26	3.86	4.29	4.64	4.88	5.45	5.75	5.64	5.10	4.45	3.28
40	362	2.18	2.78	3.64	4.32	4.79	5.19	5.46	6.09	6.43	6.30	5.70	4.97	3.66
30	272	2.52	3.21	4.20	4.98	5.53	5.99	6.30	7.03	7.43	7.28	6.58	5.74	4.23
25	226	2.76	3.52	4.60	5.46	6.06	6.56	6.91	7.70	8.14	7.97	7.21	6.29	4.63
20	181	3.09	3.93	5.15	6.10	6.78	7.34	7.72	8.61	9.10	8.91	8.06	7.03	5.18
10	91	4.37	5.56	7.28	8.63	9.58	10.37	10.92	12.18	12.87	12.61	11.39	9.94	7.32

Table B-2

SAMPLING ERRORS OF PERCENTS: CONTRA COSTA SAMPLE

Percent or Rate Per 100 (r)	3	5	10	15	20	25	30	40	50	60	70	80	90
$V_r^2 \Sigma Y$	60.0	37.0	16.5	10.3	7.3	5.6	4.4	2.8	1.8	1.2	0.74	0.43	0.17

Estimated 2s - Twice Standard Error of Percent

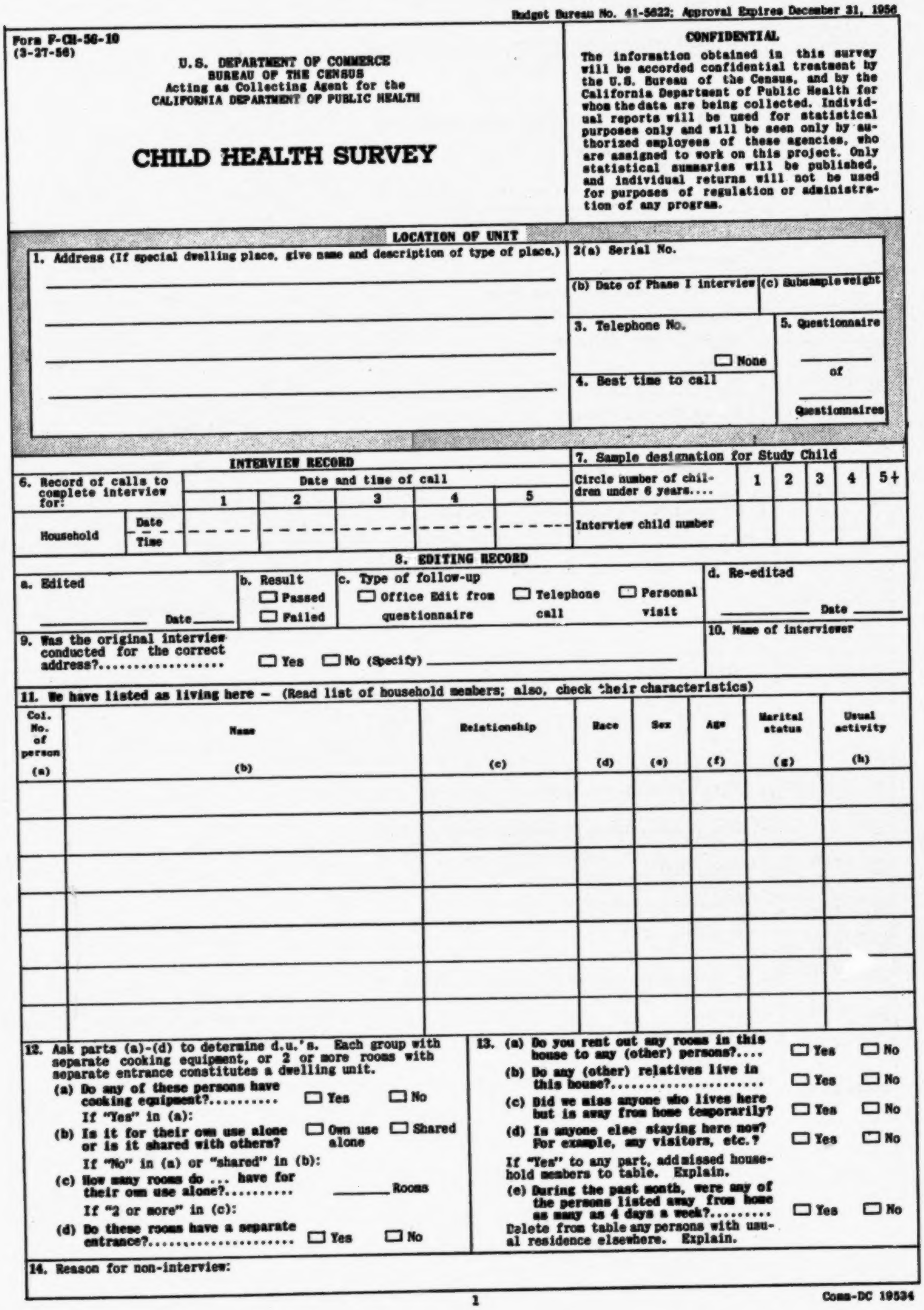
Percent of Sample	Y (Denominator)													
100	812	1.63	2.13	2.85	3.38	3.79	4.15	4.42	4.70	4.71	4.61	4.23	3.68	2.60
90	731	1.72	2.25	3.01	3.56	4.00	4.38	4.66	4.95	4.96	4.86	4.45	3.88	2.74
80	650	1.82	2.39	3.19	3.78	4.24	4.64	4.94	5.25	5.26	5.16	4.72	4.12	2.91
75	609	1.88	2.46	3.29	3.90	4.38	4.79	5.10	5.42	5.44	5.33	4.88	4.25	3.00
70	568	1.95	2.55	3.41	4.04	4.53	4.96	5.28	5.61	5.63	5.51	5.05	4.40	3.11
60	487	2.11	2.76	3.68	4.36	4.90	5.36	5.70	6.06	6.08	5.96	5.46	4.76	3.36
50	406	2.31	3.02	4.03	4.78	5.36	5.87	6.25	6.64	6.66	6.52	5.98	5.21	3.68
40	325	2.58	3.38	4.51	5.34	6.00	6.57	6.98	7.43	7.44	7.29	6.68	5.82	4.11
30	244	2.98	3.90	5.21	6.17	6.92	7.58	8.06	8.58	8.60	8.42	7.71	6.73	4.75
25	203	-	4.27	5.70	6.76	7.59	8.30	8.83	9.40	9.42	9.23	8.45	7.37	5.20
20	162	-	4.77	6.37	7.56	8.48	9.29	9.88	10.50	10.53	10.32	9.45	8.24	5.82
10	81	-	-	9.02	10.68	11.99	13.13	13.97	14.86	14.89	14.59	13.36	11.65	8.23

Additional Denominators

95	771	1.67	2.19	2.93	3.47	3.89	4.26	4.53	4.82	4.83	4.73	4.34	3.78	2.67
15	122	-	-	7.36	8.72	9.79	10.72	11.40	12.13	12.16	11.91	10.91	9.51	6.72
5	41	-	-	-	-	16.96	18.57	19.75	21.01	21.06	20.63	18.90	16.47	11.64
3	24	-	-	-	-	-	23.97	25.50	27.12	27.18	26.64	24.40	21.27	15.02

APPENDIX C

*Questionnaire Used



Budget Bureau No. 41-5622; Approval Expires December 31, 1956

Form F-CH-56-10
(3-27-56)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
Acting as Collecting Agent for the
CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CHILD HEALTH SURVEY

CONFIDENTIAL

The information obtained in this survey will be accorded confidential treatment by the U.S. Bureau of the Census, and by the California Department of Public Health for whom the data are being collected. Individual reports will be used for statistical purposes only and will be seen only by authorized employees of these agencies, who are assigned to work on this project. Only statistical summaries will be published, and individual returns will not be used for purposes of regulation or administration of any program.

LOCATION OF UNIT

1. Address (If special dwelling place, give name and description of type of place.)

2(a) Serial No.

(b) Date of Phase I interview

(c) Subsample weight

3. Telephone No. ☐ None

4. Best time to call

5. Questionnaire ____ of ____ Questionnaires

INTERVIEW RECORD

6. Record of calls to complete interview for:		Date and time of call				
		1	2	3	4	5
Household	Date Time					

7. Sample designation for Study Child

Circle number of children under 6 years....	1	2	3	4	5+
Interview child number					

8. EDITING RECORD

a. Edited ____ Date ____

b. Result ☐ Passed ☐ Failed

c. Type of follow-up ☐ Office Edit from questionnaire ☐ Telephone call ☐ Personal visit

d. Re-edited ____ Date ____

9. Was the original interview conducted for the correct address?.................. ☐ Yes ☐ No (Specify) ____

10. Name of interviewer

11. We have listed as living here – (Read list of household members; also, check their characteristics)

Col. No. of person (a)	Name (b)	Relationship (c)	Race (d)	Sex (e)	Age (f)	Marital status (g)	Usual activity (h)

12. Ask parts (a)-(d) to determine d.u.'s. Each group with separate cooking equipment, or 2 or more rooms with separate entrance constitutes a dwelling unit.
   - (a) Do any of these persons have cooking equipment?.......... ☐ Yes ☐ No
   - If "Yes" in (a):
   - (b) Is it for their own use alone or is it shared with others? ☐ Own use alone ☐ Shared
   - If "No" in (a) or "shared" in (b):
   - (c) How many rooms do ... have for their own use alone?.......... ____ Rooms
   - If "2 or more" in (c):
   - (d) Do these rooms have a separate entrance?..................... ☐ Yes ☐ No

13. (a) Do you rent out any rooms in this house to any (other) persons?.... ☐ Yes ☐ No
   - (b) Do any (other) relatives live in this house?...................... ☐ Yes ☐ No
   - (c) Did we miss anyone who lives here but is away from home temporarily? ☐ Yes ☐ No
   - (d) Is anyone else staying here now? For example, any visitors, etc.? ☐ Yes ☐ No
   - If "Yes" to any part, add missed household members to table. Explain.
   - (e) During the past month, were any of the persons listed away from home as many as 4 days a week?......... ☐ Yes ☐ No
   - Delete from table any persons with usual residence elsewhere. Explain.

14. Reason for non-interview:

1

Comm-DC 19534

*Data on education, occupation, and income secured from sections of poliomyelitis questionnaire not shown here.

Section I - STUDY CHILD (Questions 1 - 40)

1	1. I have some questions about ... (a) When was ... born, please give me the month, day, and year	______ Month ______ Day ______ Year
2 3	2. (a) While you were pregnant with ...., did you go to a doctor or clinic for any kind of care for your pregnancy? (Check all that apply)	☐ No ○ Doctor ○ Clinic ○ Other (Specify) ______
4 5	If "Yes": (b) What month of the pregnancy did you FIRST go for prenatal care? (Circle one)	1 2 3 4 5 6 7 8 9
6	(c) Did the prenatal care include anything on how to take care of the baby after birth?	○ Yes ☐ No
7	(d) If "Yes" and more than one place in 2(a): From whom did you get this advice?	☐ Doctor ☐ Clinic ☐ Other (Specify) ______
8	3. Was ... born prematurely or about the time you expected him?	1 ☐ Prematurely 2 ☐ About time expected
9	4. What did ... weigh when he was born?	______ lbs. and ______ Oz.
10	5. If under 1 year and male: (a) Has ... been circumcised?	○ Yes ☐ No
11	If "Yes": (b) At what age was this done?	Age: ______ wks. ______ Mo.
12	(c) Was there any trouble?	4 ○ Yes 3 ☐ No
13 14	If "Yes": (d) What kind of trouble did he have?	Trouble: 1 ☐ Bleeding 2 ☐ Infection 3 ☐ Further operations required 4 ☐ Other (Specify) ______
15	6. (a) During the first few weeks you were home with ...., did you have anyone to help you?	2 ○ Yes 1 ☐ No
16 17 18	If "Yes": (b) What kind of help was this? (Check all that apply)	3 ☐ Care of baby 4 ☐ Housework 5 ☐ Care of other children 6 ☐ Other (Specify) ______
19	(c) How long did you have this help?	______ Days ______ wks. ______ mo. ☐ Still has
20 21 22 23	7. Is there anything you can think of now that you would have liked in the way of help or advice for the baby or yourself that you didn't get during the first few weeks? If not volunteered: (a) What would you have liked?	☐ No Verbatim
24 25 26 27	8. (a) We're interested in all kinds of illness, whether serious or not. During the past 4 weeks, that is from ______ up through yesterday, was ... sick at any time? If "Yes": (b) What was the matter? (c) Anything else?	○ Yes (Table A) ☐ No Illnesses:
28 29	9. (a) During these 4 weeks did ... have any injuries or accidents in which he was hurt, or poisonings? If "Yes": (b) What happened? (c) Anything else?	○ Yes (Table A) ☐ No Injuries, accidents or poisonings

FOOTNOTES:

TABLE A. ILLNESSES OR ACCIDENTS

Was a doctor called or seen about ... ? (a)	What did the doctor say it was, did he use any medical terms? (If doctor not seen or called, describe illness, injury or poisoning in respondent's words) (b)	When did --- start? (Month, day and year) (c)	Was ... in bed or kept from his usual activities because of ---? (d)	If "Yes" in (d): How many days was this in the past 4 weeks? (e)	Was ... in a hospital overnight or longer because of --- ? (f)	30 31 32
2 ☐ Yes 1 ☐ No			2 ○ Yes 1 ☐ No	____ Days	☐ Yes ☐ No	33
2 ☐ Yes 1 ☐ No			2 ○ Yes 1 ☐ No	____ Days	☐ Yes ☐ No	34 35
2 ☐ Yes 1 ☐ No			2 ○ Yes 1 ☐ No	____ Days	☐ Yes ☐ No	36
2 ☐ Yes 1 ☐ No			2 ○ Yes 1 ☐ No	____ Days	☐ Yes ☐ No	37
2 ☐ Yes 1 ☐ No			2 ○ Yes 1 ☐ No	____ Days	☐ Yes ☐ No	38

10. (a) In general would you say ... is slower or more advanced than other children of the same age?	1 ○ Slower 2 ○ Some ways slower, some ways more advanced 3 ☐ More advanced 4 ☐ Same as other children (average)	39 40
If "slower" or "some ways slower": (b) In what ways is he slower?	Verbatim	41 42
11. (a) Did ... have any trouble learning to sit up?	3 ○ Yes 1 ☐ No 2 ☐ Too young	43
If "Yes": (b) What kind of trouble did he have?	Verbatim	44 45
12. (a) Did ... have any trouble learning to walk?	3 ○ Yes 1 ☐ No 2 ☐ Too young	46
If "Yes": (b) What kind of trouble did he have?	Verbatim	47 48
13. (a) Did ... have any trouble learning to talk?	3 ○ Yes 1 ☐ No 2 ☐ Too young	49
If "Yes": (b) What kind of trouble did he have?	Verbatim	50 51
14. (a) Was ... breast-fed at any time?	○ Yes 1 ☐ No	
If "Yes": (b) How old was ... when he gave up breast-feeding entirely?	____ Wks. ____ Mos. ☐ Still breast-feeding	52
A. EATING AND FEEDING (Questions 15 - 20)		53
15. (a) The times when ... refuses some or all of his food, what do you do?	Verbatim	54 55
(b) Is this any different from what you have done before with ...?	○ Yes ☐ No	56
If "Yes": (1) What did you do before?	Verbatim	57 58
16. When ... refuses to eat, why do you think he refuses?	Verbatim	59 60

FOOTNOTES:

	A. EATING AND FEEDING (Questions 15 - 20) (Continued)	
60 61	17. How much of a problem has there been with ... refusing foods, has it been a fairly serious problem, something of a problem, a very mild problem or no problem at all?	1 ○ Fairly serious 2 ○ Something of a problem 3 ○ Very mild problem 4 ☐ No problem at all
62 63	18. If at all a problem in question 17: (a) How old was ... when this first became a problem?	☐ Under 1 month _____ Months _____ Years
64	(1) Has it been a problem ever since?	2 ☐ Yes 1 ○ No 3 ☐ Now and then
65	If "No": (2) Up to what age was it a problem?	☐ Under 1 month _____ Months _____ Years
66 67	19. (a) During the past year have there been any (other) problems connected with ...'s eating, drinking or feeding?	○ Yes ☐ No Verbatim
68 69	If "Yes": (b) What was the problem?	
70	(1) Has this been a fairly serious problem, something of a problem, or a very mild problem?	1 ☐ Fairly serious 2 ☐ Something of a problem 3 ☐ Very mild
71 72	20. How does ... compare with (your) other children with respect to eating, do you have more trouble with him, less trouble or about the same amount?	1 ☐ More 2 ☐ Less 3 ☐ About the same
	B. TOILET TRAINING (Questions 21 - 24)	
73	21. (a) How old was ... when you began bowel training?	_____ Mo. _____ Yrs. ☐ Not started
74 75	If bowel training started: (b) The times when ... didn't want to get on the toilet or didn't cooperate, what did you do?	Verbatim
76	(c) Did you try any other methods?	○ Yes ☐ No
77 78 79	If "Yes": (1) What methods were these?	Verbatim
80 81 82	(d) When ... didn't cooperate, why do you think this happened?	Verbatim
83	(e) How old was ... when he had bowel control and was using the toilet regularly?	_____ Mo. _____ Yrs. ☐ Too young
84 85	22. If bowel training started or completed: (a) How does ... compare with (your) other children with respect to bowel training, did you have more trouble with him, less trouble, or about the same?	1 ☐ More 2 ☐ Less 3 ☐ About the same
86	(b) How much of a problem has bowel training been with ..., has it been fairly serious, something of a problem, a very mild problem or no problem at all?	1 ○ Fairly serious 2 ○ Something of a problem 3 ○ Very mild problem 4 ☐ No problem at all
87	23. If at all a problem: (a) How old was ... when this became a problem?	☐ Under 1 month _____ Months _____ Years
88	(b) Has it been a problem ever since?	2 ☐ Yes 1 ○ No 3 ☐ Now and then
89	If "No": (c) Up to what age was it a problem?	☐ Under 1 month _____ Months _____ Years
90	24. At what age did ... stay dry all night?	_____ Mo. _____ Yrs. ☐ Too young

C. BEHAVIOR PROBLEMS (Questions 25 - 34)

25. I am going to ask about some other problems persons sometimes have with children. (Show Card A). Please keep this card as I ask about these particular problems. During the past year, how much of a problem has there been with ... with respect to - - - ?
Has it been a fairly serious problem, something of a problem, a very mild problem or no problem at all?

NOTE: Read Card I items if serial number of household ends in an odd number; read Card II if serial number ends in an even number.

Cards I and II

Mark card used ☐ Card I ☐ Card II

☐ All problems rated #4	Statement No.	91
Type of problem		92
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26. (a) Has there been any other problem this past year in the way ... acts toward members of the family here at home?

○ Yes ☐ No

Verbatim

(b) If "Yes":
(1) What problem has there been?
(2) Has it been a fairly serious problem, something of a problem, or a very mild problem?

Statement on Card A: No. ____________

103 104 105

27. (a) During this past year has there been any particular problem with ... in the way he acts around people outside your immediate family or towards other children?

○ Yes ☐ No

Verbatim

(b) If "Yes":
(1) What problem has there been?
(2) Has it been a fairly serious problem, something of a problem, or a very mild problem?

Statement on Card A: No. ____________

106 107 108 109

28. (a) Please give me an example of something that ... has done lately that you thought was wrong and you had to correct him for.

Verbatim

110 111

(b) How did you correct him for this?

Verbatim

112 113 114

(c) Why do you think ... did this?

Verbatim

115 116

29. When you have to punish ... how do you usually do it?

Verbatim

117 118 119

FOOTNOTES:

C. BEHAVIOR PROBLEMS (Continued)

120 121 122 123	30. When your husband has to punish ...., how does he usually do it?	Verbatim
124	31. Who punishes ... most often, you or your husband?	1 ☐ Mother 2 ☐ Husband ☐ Other (Specify) ____________
125 126 127	32. About how often does ... have to be punished?	1 ☐ Never 2 ☐ Rarely 3 ☐ About once a week or several times a month 4 ☐ Not daily, but several times a week 5 ☐ Daily or more
128 129 130	33. How does ... usually take punishment? (Indicate all that apply by entering numerals in the check boxes in the order in which the responses are given)	☐ Shows no reaction ☐ Seems sorry ☐ Seems ashamed ☐ Sulks or mopes ☐ Gets angry ☐ Cries ☐ Runs off to hide ☐ Other (Specify)
131 132 133	34. At what age did you or would you expect ... to do the following things:	Read list — Age a. Pick up his own toys? ______ Yrs. b. Not to interrupt while adults are speaking? ______ Yrs. c. Dress himself completely? ______ Yrs. d. Not to cry over little things? ______ Yrs. e. To start reading simple words? ______ Yrs.

D. MEDICAL SERVICES (Questions 35 - 41)

IF OVER 2 YEARS OLD	35. (a) Have you ever taken ... to a dentist? If "Yes": (b) How old was he the first time you took him?	2 ○ Yes 1 ☐ No Age: ______ Months ______ Years
ASK EVERYONE	36. (a) Was ... born in a hospital?	○ Yes ☐ No
134	If "Yes": (b) Did ...'s doctor come to see you while you were in the hospital?	☐ Yes ☐ No
135	If "Yes": (c) Did ... get a check-up at that time?	☐ Yes ○ No
136 137	37. (a) Were you ever advised to get check-ups, shots or advice for ... when he wasn't sick (after he left the hospital)?	☐ Yes ○ No
138 139 140 141	If "Yes": (b) Who advised you to have this done?	Verbatim
142	(c) Have you ever taken ... to a doctor or clinic for check-ups, shots or advice when he wasn't sick?	2 ☐ Yes 1 ○ No
143 144 145	If "No": (d) Is there any reason why you haven't taken ... for a check-up? (Skip to question 42)	Verbatim

FOOTNOTES:

D. MEDICAL SERVICES (Continued)

38. Ask questions 38(a) - (h) for each place ... has been taken for check-ups, shots or advice when he wasn't sick. Begin with the first place and ask question 38(a).

TABLE B	First place	Second place	Third place	Fourth place
(a) How old was ... when you took him for his first (next) check-up?	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.
(b) Was this check-up given by a private doctor, at a well-baby clinic or by some other person or place?	1 ☐ Priv. doc. 2 ☐ W.B. clinic ☐ Other*	1 ☐ Priv. doc. 2 ☐ W.B. clinic ☐ Other*	1 ☐ Priv. doc. 2 ☐ W.B. clinic ☐ Other*	1 ☐ Priv. doc. 2 ☐ W.B. clinic ☐ Other*
(c) (1) Do you still have this – – – for ... ?	2 ☐ Yes 1 ○ No	2 ☐ Yes 1 ○ No	2 ☐ Yes 1 ○ No	2 ☐ Yes 1 ○ No
If "No": (2) Up to what age did you take ... to – – – ?	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.	______ wks. ______ mo. ______ yrs.
(3) What was the reason you didn't keep on with – – – for ... ? (Verbatim)				
(d) Did ... get a check-up there?	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No
(e) Did ... get shots and vaccinations there?	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No
(f) Did you get information or advice there about ... ?	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No	2 ☐ Yes 1 ☐ No
(g) (1) About how many times did you take ... to – – – during the past 12 months when he wasn't sick?	☐ None ______ Times	☐ None ______ Times	☐ None ______ Times	☐ None ______ Times
(2) How many times altogether when he wasn't sick?	______ Times	______ Times	______ Times	______ Times
(h) (1) While you were taking ... to – – –, were you taking him to any other doctor or clinic when he wasn't sick? (If "Yes" complete 38(a)-(h))	2 ○ Yes 1 ☐ No	2 ○ Yes 1 ☐ No	2 ○ Yes 1 ☐ No	2 ○ Yes 1 ☐ No

If "No" to 38(c) ask:
What was the next place you took ... for check-ups, shots, or advice when he wasn't sick? Complete question 38(a) - (h).

39. (a) Thinking again of all the places you have taken ... when he wasn't sick, for check-ups, shots or advice, what have you liked about your experiences with these places? (1) Anything else?	Verbatim
(b) What have you not liked about your experiences with these places? (1) Anything else?	Verbatim
40. (a) Would you like to see a doctor more often than you do for ..., for check-ups, advice and so on?	2 ○ Yes 1 ☐ No
If "Yes": (b) What prevents you from going as often as you would like? (Check all that apply)	3 ☐ Too far away, transportation difficulties 4 ☐ Not available 5 ☐ Costs too much ☐ Other (Specify) __________
41. (a) Do you take ... to the same doctor or clinic when he is sick as when he is well?	☐ Yes, same ☐ No, different
(b) Are you satisfied with this arrangement? If "No": (1) Why is that?	☐ Yes ○ No Verbatim

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Section II - ALL CHILDREN		
179	42. Have you taken any of your children (besides ...) to a well-baby clinic?	2 ☐ Yes 1 ☐ No
180	43. Have you taken any of your children (besides ...) when they weren't sick to a private doctor?	2 ☐ Yes 1 ☐ No
181 182	44. What other people or services dealing with children have you used, such as nursery schools, child guidance centers, day care centers, the Health Department and so on?	☐ None or Specify services used
183 184	45. From your own experience what would you say are the most important problems you have found in keeping your child (children) well and happy? (a) Anything else?	Verbatim
Section III - CHARACTERISTICS ABOUT RESPONDENT		
185 186	46. Now I have some questions about you, where were you born?	If U.S.: ________ City or county ________ State Outside U.S. ________ Country
187	47. (a) In what country was your mother born? (b) In what country was your father born?	☐ U.S. ☐ Other (Specify) ________ ☐ U.S. ☐ Other (Specify) ________
188	48. If now married: (a) When did you marry your present husband?	Date: ________ Month 19____ Year
189	49. (a) Are all the children in the family your own?	1 ☐ Yes 2 ○ No
190 191	(b) If "No": What is their relationship to you?	Col. No. ________ How related ________
192	50. (a) Have you had any children other than those who live here in the house with you?	2 ○ Yes 1 ☐ No
193	(b) If "Yes": How old are they?	Ages:
194	51. (a) How long have you lived here in ________ (community)?	☐ Entire life ________ Mo. or ________ Yrs.
195 196	(b) If not "entire life": Where did you live most of your life before you came here?	________ City or county ________ State
197	52. (a) If not now on a farm: Have you ever lived on a farm?	2 ○ Yes 1 ☐ No
198	(b) If "Yes": How old were you when you lived on a farm?	From ________ yrs. to ________ yrs.
199	53. (a) If "works" in col. (h) of Household Table: How old was ... (study child) when you went to work after he was born?	☐ Under 1 month ________ Months ________ Years
200	54. (a) If "housewife" or "something else" in col. (h): Have you worked outside the home since ... (study child) was born?	2 ○ Yes 1 ☐ No
201	(b) If "Yes": How old was ... when you went to work after he was born?	☐ Under 1 month ________ Months ________ Years
Section IV - CHARACTERISTICS ABOUT HUSBAND		**Section VI - DO NOT ASK**
202	55. Where was your husband born?	a. Was an interpreter used? 1 ☐ Yes 2 ☐ No
203 204	U.S. ________ City or county ________ State Outside U.S. ________ Country	b. During the interview, which household members were present? Col. No. of respondent: Col. No. of others present:
205	56. (a) In what country was his mother born? ☐ U.S.	
206	(b) In what country was his father born? ☐ U.S.	c. Were any persons outside the household present? 2 ☐ Yes 1 ☐ No (1) If "Yes", who? ________
207	57. How long has he lived here in ________ (community)? ☐ Entire life ________ Mo. ________ Yrs.	d. How would you describe the cooperation of the respondent? 1 ☐ Excellent 2 ☐ Good 3 ☐ Fair 4 ☐ Poor 5 ☐ Other (Specify) ________
Section V - HOUSEHOLD		
208	58. How many rooms do you have, not counting bathrooms and halls? ________ Rooms	

APPENDIX D

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